DANA'S

SEAMEN'S FRIEND:

CONTAINING

A Treatise on Practical Seamanship,

WITH PLATES;

A DICTIONARY OF SEA TERMS;
AND THE CUSTOMS AND USAGES OF THE MERCHANT SERVICE;
WITH THE BRITISH LAWS RELATING TO SHIPPING,
THE DUTIES OF MASTER AND MARINERS,
AND THE MERCANTILE MARINE.

NEW EDITION REVISED AND CORRECTED, AND WITH NOTES.

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AUTHOR OF THE "LAWS OF SHIPPING AND INSURANCE,"
"LETTERS TO SHIPMASTERS," ETC., ETC.

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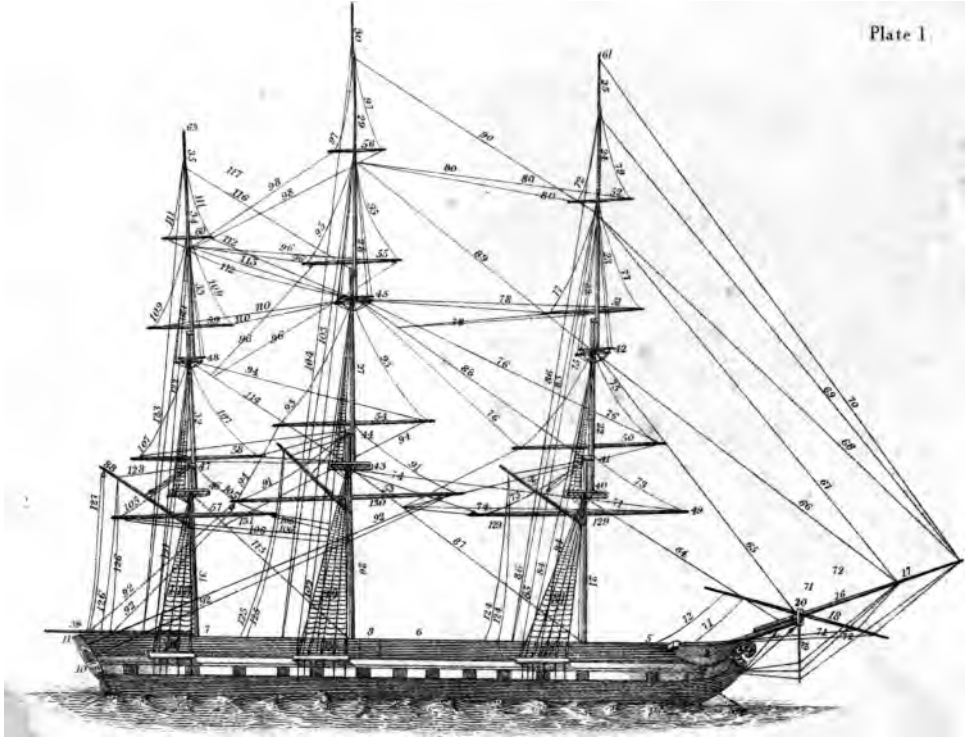
Plate I.



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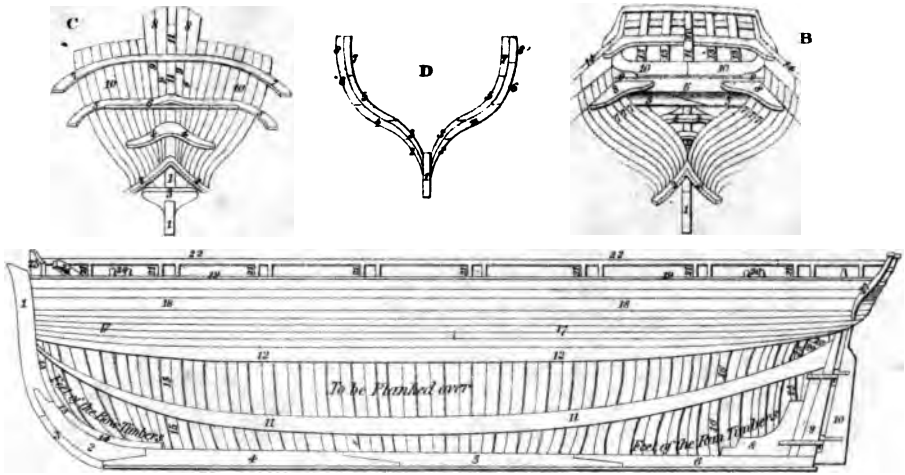
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EXPLANATIONS.

SHIP.—A ship is square-rigged throughout; that is, she has tops, and carries square sails on all three of her masts.

BARK.—A bark is square-rigged at her fore and main masts, and differs from a ship in having no top, and carrying only fore-and-aft sails at her mizzen-mast.

BRIG.—A full-rigged brig is square-rigged at both her masts.

HERMAPHRODITE BRIG.—A hermaphrodite brig is square-rigged at her fore-mast; but has no top, and only fore-and-aft sails at her main mast.

TOPSAIL SCHOONER.—A topsail schooner has no tops at her foremast, and is fore-and-aft rigged at her mainmast. She differs from a hermaphrodite brig in that she is not properly square-rigged at her foremast, having no top, and carrying a fore-and-aft foresail, instead of a square foresail and a spencer.

FORE-AND-AFT SCHOONER.—A fore-and-aft schooner is fore-and-aft rigged throughout, differing from a topsail schooner in that the latter carries small square sails aloft at the fore.

SLOOP.—A sloop has one mast, fore-and-aft rigged.

HERMAPHRODITE BRIGS sometimes carry small square sails aloft at the main; in which case they are called BRIGANTINES, and differ from a FULL-RIGGED BRIG in that they have no top at the mainmast and carry a fore-and-aft mainsail instead of a square mainsail and trysail. Some TOPSAIL SCHOONERS carry small square sails aloft at the main as well as the fore; being in other respects fore-and-aft rigged. They are then called MAIN TOPSAIL SCHOONERS.

Ship

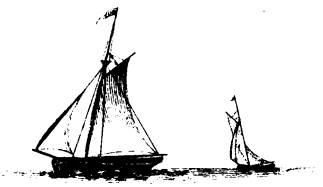
Bark

Full-rigged Brig

Hermaphrodite Brig

Top sail Schooner

Fore & Aft Schooner



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PART I.

CHAPTER I.

GENERAL RULES AND OBSERVATIONS.

Construction of vessels—Tonnage and carriage of merchant vessels—Proportions of spars—Placing the masts—Size of anchors and cables—Lead lines—Log line—Ballast and lading.

CONSTRUCTION OF VESSELS.—As merchant vessels of the larger class are now built in the United States, the extreme length of deck, from the after part of the stern-post to the fore part of the stem, is from four-and-a-half to four-and-three-fourths that of the beam, at its widest part. The Damascus, of 700 tons' measurement, built at Boston in 1839, and considered a fair specimen of our best freighting vessels, had 150 feet from stem to stern-post, and 32 feet 6 inches extreme breadth. The Rajah, of 530 tons, built at Boston in 1837, had 140 feet length, and 30 feet beam;—being each in length about four and six-tenths their beam.

A great contrast to this proportion is exhibited in the most recent statistics (1841) of vessels of the same tonnage in the English navy; as the following table will shew:—

		Tons.	Deck.	Beam.	Proportion.
English Navy.	Dido	734	120 ft.	37 ft. 6 in.	3·20
	Pilot	492	105 „	33 „ 6 „	3·13
	Alert	358	95 „	30 „ 4 „	3·16
American Merchantmen.	Damascus	694	150 „	32 „ 6 „	4·60
	Rajah	531	140 „	30 „ 0 „	4·66

These may, perhaps, be considered the extremes of ship-building; and between these there is every grade of difference.

TONNAGE AND CARRIAGE OF MERCHANT VESSELS.—The amount a vessel will carry in proportion to her tonnage, depends upon whether,

and to what extent, she is full or sharp built. A sharp-built vessel of 300 tons' measurement, will carry just about her tonnage of measurement goods. A sharp-built vessel of 200 tons or under, would probably carry less than her measurement. If over 400 tons, she would increase gradually to fifty per cent. above her measurement. A sharp-built vessel of 600 tons, is generally rated at 900 tons' carriage. A full-built vessel of 300 tons, after the latest model of American freighting vessels, will carry 525 tons, or seventy-five per cent. above her measurement; and one of 500 tons would carry full double her measurement.

The following table may give a pretty fair average:—

TONS OF MEASUREMENT GOODS.

Tonnage.	Full-built.		Sharp-built.	
300	(·75)	525	(·00)	300
400	(·80)	725	(·40)	560
500	(1·00)	1000	(·50)	750
600	(1·33)	1400	(·50)	900

Proportions of Spars.—There is no particular rule for sparring merchant vessels; some being light, and others heavy-sparred; and some having long topmasts and short lowermasts, and others the reverse. The prevailing custom now is, to spar them lightly; the mainyard being little less than double the beam; and the others proportioned by the main. Most merchant vessels now have the yards at the fore and main of the same size, for convenience in shifting sails; so that the same topsail may be bent on either yard.

The following table, taken from the "Seamen's Manual," will shew the average proportions of the spars of merchant vessels of the largest class, as formerly built:—

Mainmast, two-and-a-half times the ship's beam.
Foremast, eight-ninths of the mainmast.
Mizzenmast, five-sixths of the mainmast.
Bowsprit, two-thirds of the mainmast.
Topmasts, three-fifths of the lowermasts.
Topgallant-masts, one-half the length of their topmasts.
Jibboom, the length of the bowsprit.
Mainyard, twice the beam.
Foreyard, seven-eighths of the mainyard.
Maintopsail-yard, two-thirds of the mainyard.
Foretopsail-yard, two-thirds of the foreyard.
Crossjack-yard, the length of the maintopsail-yard.
Topgallant-yards, two-thirds of the topsail-yards.
Mizzentopsail-yard, the length of the maintopgallant-yard.

Royal-yards, two-thirds of the topgallant-yards.
Spritsail-yard, five-sixths of the foretopsail-yard.
Spanker-boom, the length of the maintopsail-yard.
Spanker-gaff, two-thirds of the boom.

For the thickness of the spars, the same book allows for the lower masts one inch and a-quarter diameter at the partners, for every three feet of length; and nine-tenths in the middle and two-thirds under the hounds, for every inch at the partners. For the yards, one inch at the slings, and half an inch at the yard-arms, within the squares, for every four feet of the length. For the breadth of the maintop, one-half of the beam, and of the foretop, eight-ninths of the maintop.

The following are the proportions of the spars of the ship Damascus, before mentioned, built in 1839:—

Mainmast	74 ft.	Head 11 ft. 6 in.	Size 26 in.
Foremast	70 ft.	,, 11 ft. 6 in.	,, 25 in.
Mizzenmast	68 ft.	,, 8 ft. 6 in.	,, 18 in.
Main and fore-topmasts	41 ft.	,, 6 ft. 6 in.	,, 14½ in.
Mizzen topmast	32 ft.	,, 5 ft.	,, 9½ in.
Maintopgallant-mast	23 ft.	(15 ft. with 2 feet head)	9½ in.
Foretopgallant-mast	21 ft.	14 ft. ,, 2 ,, ,, ,,	9½ in.
Mizzentopgallant-mast	17 ft.	11 ft. ,, 18 in. ,,	
Main and fore-yards	60 ft.	yard-arms 2 ft. 6 in.	
Main and foretopsail-yards	48 ft.	,, ,, 3 ft. 6 in.	
Maintopgallant-yard	37 ft.	,, ,, 2 ft.	
Foretopgallant ,,	34 ft.	,, ,, 2 ft.	
Mainroyal ,,	27 ft.	,, ,, 1 ft. 6 in.	
Foreroyal ,,	24 ft.	,, ,, 1 ft. 6 in.	
Mainskysail ,,	17 ft.		
Foreskysail ,,	15 ft.		
Crossjack ,,	44 ft.	,, ,, 2 ft.	
Mizzentopsail ,,	35 ft.	,, ,, 2 ft. 9 in.	
Mizzentopgallant ,,	25 ft.	,, ,, 1 ft. 6 in.	
Mizzenroyal ,,	16 ft.		
Mizzenskysail ,,	10 ft.		
Bowsprit, out-board	27 ft.		Size 26 in.
Jibboom	42 ft.	Head 3 ft.	,, 14½ in.
Flying jibboom	40 ft.	,, 3 ft. 6 in.	
Mainpole	12 ft.,	10 above royal-mast, 5 in. in cap.	
Forepole	11 ft.,	9 ,, ,, ,, 4½ in. ,, ,,	
Mizzenpole	9 ft.,	7 ,, ,, ,,	
Spanker-boom	40 ft.		

Spanker-gaff 30 ft.
Swinging-booms 40 ft.
Topmast studdingsail-booms 34 ft.
Topgallant studdingsail-booms 27 ft., yards for do. 17 ft.

PLACING THE MASTS.—For a full-built ship, take the ship's extreme length, and divide it into sevenths. Place the foremast one-seventh of this length from the stem; the mainmast three-sevenths from the foremast, and the mizzenmast two-sevenths from the mainmast. If a vessel is sharp built, and her stem and stern-post rake, her foremast should be further aft, and her mizzenmast further forward, than the rule of sevenths would give. A common rule for placing the foremast, is to deduct three-fifths of a ship's beam from her length, for the curvature of the keel forward, which is called the *keel-stroke*, and place the mast next abaft the keel-stroke.

SIZE OF ANCHORS AND CABLES.—Various rules have been adopted for the weight of a ship's anchors. A vessel of 100 tons will generally have a best bower of 6 cwt. and a small bower of 5 cwt.; the weight of both being eleven pounds to a ton of the vessel. As a vessel increases in size, the proportion diminishes. A vessel of 700 tons will usually carry a best bower of 27 cwt. and a small bower of 24 cwt.; the weight of both being seven-and-a-half pounds to a ton of the vessel. The *stream* should be a little more than one-third the weight of the best bower. The anchor-stock should be the length of the shank; its diameter should be half that of the ring, and its thickness one inch at the middle and half an inch at each end for every foot in length. Chain cables are usually ninety fathoms in length, for large-sized vessels, and sixty for small vessels, as schooners and sloops. The regulation of the United States Navy for chain cables, is one inch and a-half for a sloop of war, and one-and-a-quarter for brigs and schooners. In the merchant service, a ship of 400 tons would probably have a best bower cable of one-and-five-sixths, and a working bower of one-and-a-quarter inches. A ship of 700 tons would have a best bower of one-and-five-eighths, and a working bower of one-and-a-half inches. Chain cables have a shackle at every fifteen fathoms, and one swivel at the first shackle. Some have two swivels; and formerly they were made with a swivel between each shackle.

LEAD-LINES.—The *hand-lead* weighs usually seven pounds, and the hand-line is from twenty to thirty fathoms in length. The *deep-sea-lead* (pro. dipsey) weighs from fourteen to eighteen or twenty pounds; and the deep-sea-line is from ninety to one hundred and ten fathoms. The proper way to mark a hand-line is, black leather at 2 and 3 fathoms; white rag at 5; red rag at 7; wide

strip of leather, with a hole in it, at 10; and 13, 15 and 17 marked like 3, 5 and 7; two knots at 20; 3 at 30; and 4 at 40; with single pieces of cord at 25 and 35.

The deep-sea-line has one knot at 20 fathoms, and an additional knot at every 10 fathoms, with single knots at each intermediate 5 fathoms. It sometimes has a strip of leather at 10 fathoms, and from 3 to 10 is marked like the hand-line.

Log-line.—The rate of a ship's sailing is measured by a log-line and a half-minute-glass. The line is marked with a knot for each mile; the real distance between each knot being, however, 1-120th of a mile, since a half-minute is 1-120th of an hour. A knot being thus the same portion of a mile that a half-minute is of an hour, the number of knots carried off while the glass is running out will shew the number of miles the vessel goes in an hour. Many glasses, however, are made for twenty-eight seconds, which, of course, reduces the number of feet for a knot to forty-seven and six-tenths. But as the line is liable to stretch, and the glass to be affected by the weather, in order to avoid all danger of a vessel's overrunning her reckoning, and to be on the safe side, it is recommended to mark forty-five feet to a knot for a twenty-eight-second glass. About ten fathoms is left unmarked next the chip, called *stray-line.* The object of this is that the chip may get out of the eddy under the stern, before the measuring begins. The end of the stray-line is marked by a white rag, and the first knot is forty-five or forty-seven feet from the rag. A single piece of cord or twine is put into the line for the first knot, one knot for the second, two for the fourth, three for the sixth, and so on, a single piece of cord being put in at the intermediate knots.

Ballast and Lading.—A ship's behaviour, as the phrase is, depends as much upon the manner in which she is loaded and ballasted, as upon her model. It is said that a vessel may be prevented from rolling heavily, if, when the ballast is iron, it is stowed up to the floor-heads; because this will bring the ship back, after she has inclined, with less violence, and will act upon a point but little distant from the centre of gravity, and not interfere with her stiff carrying of sail. The cargo should be stowed with the weightier materials as near as possible to the centre of gravity, and high or low, according to the build of the vessel. If the vessel is full and low-built, the heavy articles should be stowed high up, that the centre of gravity may be raised and the vessel kept from rolling too much, and from being too laborsome. But a narrow, high-built vessel should have the heavy articles stowed low and near the keelson, which will tend to keep her from being crank, and enable her to carry sail to more advantage.

CHAPTER II.

CUTTING AND FITTING STANDING RIGGING.

Measuring and cutting lower rigging and lower fore-and-aft stays—Fitting the same—Measuring, cutting, and fitting topmast rigging, stays and backstays—Jib, topgallant and royal stays—Ratling down rigging—Cutting and fitting lifts, foot-ropes, brace-block straps, and pennants—Breast-backstays.

Cutting Lower Rigging.—Draw a line from the side of the partners abreast of the mast, on the deck, parallel to the channels, and to extend as far aft as they do. On this line mark the places of each dead-eye, corresponding to their places against the channels. Send a line up to the mast-head, and fasten it to the mast by a nail above the bibbs, in a range with the centre of the mast, and opposite to the side the channel line is drawn upon. Then take the bight of the line around the forward part of the mast, and fasten it to the mast by a nail, opposite the first nail, so that the part between the nails will be half the circumference of the mast-head; then take the line down to the mark on the channel line for the forward dead-eye, and mark it as before; and so on, until you have got the distance between the mast and each mark on the channel line. Now cast off the line from the mast-head, and the distance between the end of the line and each mark will give you the length of each shroud from the lower part of the mast-head. And, to make an allowance for one pair of shrouds overlaying another, you may increase the length of the pair put on second, that is, the larboard forward ones, by twice the diameter of the rigging; the third pair by four times; and so on.

The size of the lower rigging should be as much as eight-and-a-half inches for vessels of seven or eight hundred tons, and from seven-and-a-half to eight for smaller vessels, over three hundred tons.

For the length of the fore, main, and mizzen stays and spring-stays, take the distance from the after part of the mast-head to their hearts, or to the place where they are set up, adding once the length of the mast-head for the collar.

The standing stays should be once and half the circumference of the shrouds.

Fitting Lower Rigging.—Get it on a stretch, and divide each pair of shrouds into thirds, and mark the centre of the middle third. Tar, worm, parcel, and serve the middle third. Parcel *with* the lay of the rope, working toward the centre; and serve *against* the lay, beginning where you left off parcelling. Serve as taut as possible.

In some vessels the outer thirds of the swifters are served; but matting and battens are neater and more generally used.

Formerly the middle third was parcelled over the service, below the wake of the futtock staff. Mark an eye at the centre of the middle third, by seizing the parts together with a round seizing. The eye of the pair of shrouds that goes on first should be once and a-quarter the circumference of the mast-head; and make each of the others in succession the breadth of a seizing larger than the one below it. Parcel the score of the dead-eye, and heave the shroud taut round it, turning in *with* the sun, if right-hand-laid rope, and *against* the sun if hawser-laid; then pass the throat seizing with nine or ten turns, the outer turns being slacker than the middle ones. Pass the quarter seizings half way to the end, and then the end seizings, and cap the shroud, well tarred under the cap. Make a Matthew Walker knot in one end of the lanyard, reeve the other end *out* through the dead-eye of the shroud, beginning at the side of the dead-eye upon which the end of the shroud comes, and *in* through the dead-eye in the channels, so that the hauling part of the lanyard may come in-board and on the same side with the standing part of the shroud. If the shroud is right-hand-laid rope, the standing part of the shroud will be aft on the starboard, and forward on the larboard side; and the reverse, if hawser-laid.

The neatest way of setting up the lower fore-and-aft stays, is by reeving them *down* through a bull's eye, with tarred parcelling upon the thimble, and setting them up on their ends, with three or four seizings. The collar of the stay is the length of the mast-head, and is leathered over the service. The service should go beyond the wake of the foot of the topsail, and the main-stay should be served in the wake of the foremast. The main and spring stays usually pass on different sides of the foremast, and set up at the hawse-pieces.

The bolsters under the eyes of the rigging should always be covered with tarred parcelling, marled on.

The starboard forward shroud goes on first; then the larboard; and so on. The fore stay and spring stay go over the shrouds; and the head stays always goes over the back stays.

Cutting and Fitting Topmast Rigging.—For the forward shroud, measure from the hounds of the topmast down to the after part of the lower trestle-trees, and add to that length half the circumference of the mast-head at the hounds. The eye is once and a-quarter the circumference of the mast-head. The topmast rigging in size should be three-fifths of the lower rigging. For the topmast back stays, measure the distance from the hounds of the mast down to the centre of the deck, abreast of their dead-eyes in the channels, and

add to this length one-half the circumference of the mast-head. Add to the length of the larboard pair, which goes on last, twice the diameter of the rope. The size of the fore and main topmast backstays is generally one-quarter less than that of the lower rigging; and that of the mizzentopmast backstays the same as that of the maintopmast rigging. The size of the topmast stays should be once and a-quarter that of the rigging. The topmast rigging is fitted in the same manner as the lower. The backstays should be leathered in the wake of the tops and lower yards. The breast-backstays are turned in upon blocks instead of dead-eyes, and set up with a luff purchase. The foretopmast stay sets up on the starboard, and the spring stay on the larboard side of the bowsprit.

All the fore-and-aft stays are now set up on their ends, and should be leathered in their nips as well as in their eyes.

The maintopmast stay goes through a heart or thimble at the foremast-head, or through a hole in the cap, and sets up on deck or in the top; and the mizzentopmast stay sets up at the mainmast-head, above the rigging.

Jib, Topgallant, and Royal Rigging.—The jib stay sets up on its end on the larboard side of the head, and is served ten feet from the boom, and its collar is leathered like that of the topmast stay. The gaub lines or back ropes go from the martingale in-board. The guys are fitted in pairs, rove through straps or snatches on the spritsail yard, and set up to eye-bolts inside or abaft the cat-heads. The foot-ropes are three-quarters the length of the whole boom, and go over the boom-end with a cut splice. Overhand knots or Turks-heads should be taken in them at equal distances, to prevent the men from slipping, when laying out upon them.

The most usual method of fitting topgallant rigging in merchant-men, is to reeve it through holes in the horns of the cross-trees, then pass it between the topmast shrouds over the futtock staff, and set it up at an iron band round the topmast, just below the sheave-hole; or else down into the top, and set it up there. To get the length of the starboard forward shroud, measure from the topgallant-mast-head to the heel of the topmast, and add one-half the circumference of the topgallantmast-head. Its size should be about five-sevenths of the topmast rigging. Each pair of shrouds should be served below the futtock staves. They are fitted like the topmast shrouds. The fore-and-aft stays of long topgallant masts go with eyes, and are served and leathered in the wake of the foot of the sails. The foretopgallant stay leads in on the starboard side of the bowsprit, and sets up to a bolt at the hawse-piece; the main leads through a chock on the after-part of the foretopmast cross-trees,

and sets up in the top; and the mizzen usually through a thimble on the main cap, and sets up on its end.

The topgallant backstays set up on their end, or with lanyards in the channels; and for their length measure from the mast-head to the centre of the deck, abreast the bolt in the channels.

The royal shrouds, back stays, and fore-and-aft stays, are fitted like those of the topgallant masts, and bear the same proportion to them that the topgallant bear to the topmast. The fore royal stay reeves through the outer sheave-hole of the flying jibboom, and comes in on the larboard side; the main through a thimble at the fore crossjack-trees; and the mizzen through a thimble at the maintopmast cap. The flying-jibstay goes in on the starboard side, and sets up like the jibstay. The gear of the flying-jibboom is fitted like that of the jibboom.

Ratling.—Swift the rigging well in, and lash handspikes or boat's oars outside at convenient distances, parallel with the shear-pole. Splice a small eye in the end of the ratlin, and seize it with yarns to the after shroud on the starboard side and to the forward on the larboard, so that the hitches may go *with* the sun. Take a clove hitch round each shroud, hauling well taut, and seize the eye of the other end to the shroud. The ratlins of the lower rigging should be thirteen, and of the topmast rigging eleven inches apart, and all square with the shear-pole.

Standing Rigging of the Yards.—The first thing to go upon the lower yard-arm, next the shoulder, is the head-earing strap; the next, the foot-ropes; next, the brace-block; and lastly, the lift. The foot-ropes go with an eye over the yard-arm, are rove through thimbles in the end of the stirrups (sometimes with Turks-heads, to prevent their slipping), and are lashed to bolts or thimbles, but now usually to the iron trusses. The stirrups fit to staples in the yard, with an eye-splice. The lifts should be single, and fitted with an eye over the yard-arm, and lead through a single block at the mast-head, and set up by a gun or luff tackle purchase, with the double block hooked to a thimble or turned in at the end, and the lower block to an eye-bolt in the deck. Instead of brace-blocks on the fore and main yards, brace pennants fitted over the yard-arm with an eye are neater. The latest and neatest style of rigging lower yards is to have a strong iron band with eyes and thimbles round each yard-arm, close to the shoulder, and then fit the lift, foot-rope, and brace-pennant, each to one of these eyes, with an eye-splice round the thimble or with a hook. The lower lifts now, for the most part, cross each other over a saddle upon the cap, instead of going through blocks.

The inner ends of the foot-ropes to the topsail, topgallant and

royal yards, cross each other at the slings; and on the topsail yard there are Flemish-horses, spliced round thimbles on the boom-iron, and the other end seized to the yard, crossing the foot-rope. A neater mode is to hook the outer end of the Flemish-horse, so that it may be unhooked and furled in with the sails when in port. Next to the foot-ropes go on the brace-blocks, and lastly, the lifts. The rigging to the topgallant and royal yards is fitted similarly to that upon the topsail, except that there is nothing over the yard-arms but foot-rope, brace and lift. The brace to the royal yard fits with an eye. The reef-tackle, studding-sail halyard, and other temporary blocks, are seized to the lower and topsail yard-arms by open straps, so that they may be removed without taking off the lift. The topgallant studding-sail halyard block is often hooked to the boom-iron, under the yard.

The foot-ropes to the spanker-boom should be half the length of the boom, going over the end with a splice, covered with canvas, and coming in one-third of the way to the jaws, and seized to the boom by a rose-seizing through an eye-splice. The next to go over the boom-end are the guys, which are fitted with a cut-splice covered with canvas, and have a single block turned in at their other ends. To these single blocks are luff or gun-tackle purchases, going to the main brace-bumpkin. Their length should be two-fifths that of the boom. The topping-lifts are usually hooked into a band or spliced into bolts about one-quarter the distance from the outer end of the boom, and reeve through single blocks under the top, with a double or single block at their lower ends.

All the splices and seizings of the standing rigging should be covered with canvas, if possible, except in the channels and about the head, where they are too much exposed to the washing of water. A vessel looks much neater for having the ends of the rigging, where eyes are spliced, or where they are set up on their ends aloft or on deck, covered with canvas, and painted white or black, according to the place where they are. The lanyards and dead-eyes of the smaller rigging which sets up in the top may also be covered with canvas. The lanyards, dead-eyes, and turnings-in of the rigging in the channels, should always be protected by scotchmen when at sea, and the forward shroud should be matted or battened all the way up to the futtock staves.

In some smaller merchantmen the lower rigging is not unfrequently set up upon its end to bolts in the rail. This is very inconvenient on many accounts, especially as all the seizings have to be come up with, and the nip of the shroud altered, whenever it is at all necessary to set them taut. This soon defaces and wears out the ends; while, with dead-eyes, only the lanyards have to be come

up with. Some vessels set up their lower rigging with dead-eyes upon the rail. This is convenient in setting them up in bad weather, but does not give so much spread as when set up in the channels, and presents a more complicated surface to the eye. If the rigging is fitted in this way, you must deduct the height of the rail above the deck from the measure before given for cutting it.

BREAST-BACKSTAYS.—It is not usual now for merchant vessels to carry topmast breast-backstays. If they are carried, they are spread by out-riggers from the top. Topgallant and royal breast-backstays are used, and are of great assistance in sailing on the wind. There are various ways of rigging them out, of which the following is suggested as a neat and convenient one. Have a spar fitted for an out-rigger, about the size of one of the horns of the cross-trees, with three holes bored in it, two near to one end, and the third a little the other side of the middle. Place it upon the after horn of the cross-tree, with the last-mentioned hole over the hole in the end of the horn of the cross-tree, and let the after topgallant shroud reeve through it. Reeve the topgallant and royal breast-backstays through the outer holes, and set them up by a gun-tackle purchase, in the channels.* The inner end of the out-rigger should fit to a cleat, and be lashed to the cross-tree by a lanyard. When the breast-backstays are to be rigged in, cast off the lanyard, and let the out-rigger slue round the topgallant shroud for a pivot, the inner end going aft, and the outer end, with the backstays, resting against the forward shroud. One of these out-riggers should be fitted on each side, and all trouble of shifting over, and rigging out by purchase, will be avoided.

CHAPTER III.

FITTING AND REEVING RUNNING RIGGING.

Fore braces—Main braces—Crossjack braces—Fore, main, and mizzentopsail braces—Fore, main, and mizzen topgallant and royal braces—Trusses - Topsail tyes and halyards—Topgallant and royal halyards—Peak and throat halyards—Spanker brails—Fore and main tacks and sheets—Topsail, topgallant, and royal sheets and clewlines—Reef-tackles—Clew-garnets—Fore and main buntlines, leachlines, and slablines—Topsail clewlines and buntlines—Bowlines.

TO REEVE A BRACE, begin on deck, and reeve to where the standing part is made fast. The *fore braces* reeve *up* through a block on the mainmast just below the rigging, *down* or *in* through the brace-block on the yard or at the end of the pennant, and the standing part

* The royal breast-backstay may be used as the fall of the purchase.

is brought through the cheeks of the mast with a knot inside. The neatest way for reeving the *main brace* is *out* through a single block on the brace-bumpkin, *out* through the brace-pennant-block, *in* through an outer block on the bumpkin, and seized to the strap of the pennant. Another way is *out* through the bumpkin block, *out* or *down* through the pennant block, and secure the end to the bumpkin or to the fashion-piece below.

The *crossjack braces* reeve *up* through blocks on the after shroud of the main rigging, *up* through blocks on the yard, one-third of the way in from the yard-arm, and are seized to a bolt in the mainmast, or to the after shroud again.

The *foretopsail braces* reeve *up* through the blocks secured to the bibbs at the mainmast-head, *in* through the span-block at the collar of the mainstay, *up* through the block on the yard, and are seized to the maintopmast-head; or else *up* through a block at the topmast-head, down through the brace-block on the yard, and are seized to the collar of the mainstay. The last way is the best. The *maintopsail braces* are rove through span-blocks at the mizzenmast, below the top, *up* through the blocks on the yard, and are seized to the mizzentopmast-head; or else *up* through a block at the mizzenmast-head, *down* through the block on the yard, and secured to the mizzenmast. The first way is the best. The *mizzentopsail braces* reeve *up* through the leading blocks or fair-leaders on the main rigging, *up* through blocks at the mainmast-head, or at the after part of the top, *up* through the yard blocks, and are seized to the cap.

The *fore* and *maintopgallant braces* are rove *up* through blocks under the topmast cross-trees, *in* through span-blocks on the topmast stays, just below their collars, *up* through the blocks on the yards, and the main are usually seized to the head of the mizzen topgallant mast, and the fore to the topmast stay, by the span-block. The *mizzentopgallant braces* generally go single, through a block at the after part of the maintopmast cross-trees. The *royal braces* go single: the *fore*, through a block at the maintopgallant mast-head; the *main*, through one at the mizzentopgallant mast-head; and the *mizzen*, through a block at the after part of the maintopmast cross-trees.

HALYARDS.—The *lower yards* are now hung by patent iron trusses, which allow the yard to be moved in any direction; topped up or braced. The *topsail yards* have chain tyes, which are hooked to the slings of the yard, and rove through the sheave-hole at the mast-head. The other end of the tye hooks to a block. Through this block a chain runner leads, with its standing part hooked to an eye-bolt in the trestle-tree, and with the upper halyard-block hooked to

its other end. The halyards should be a luff purchase, the fly-block being the double block, and the single block being hooked in the channels. Sometimes they are a gun-tackle purchase, with two large single blocks. The lower block of the mizzentopsail halyards is usually in the mizzen-top, the fall coming down on deck.

The *fore* and *mizzentopsail halyards* come down to port, and the main to the starboard. The *topgallant halyards* come down on opposite sides from the topsail halyards; though the fore and main usually come down by the side of the masts. The fore and main topgallant halyards sometimes hoist with a gun-tackle purchase, but the mizzen and all the royal halyards are single.

The *throat and peak halyards* of the spanker are fitted in the following manner. The outer peak halyard block is put on the gaff, one-third of its length from the outer end, or a very little, if any, within the leach of the sail; and the inner one two-thirds in. The blocks are fitted round the gaff with grommet straps, and are kept in their places by cleats. The double block of the peak halyards is strapped to the bolt in the after part of the mizzen cap, and the halyards are rove *up* through this, *in* through the blocks on the gaff, the inner one first, the standing part made fast to the double block, and the fall coming on deck. The upper block of the throat halyards is secured under the cap, and the lower block is hooked to an eye-bolt on the jaws of the gaff. This is a twofold tackle.

THE SPANKER BRAILS.—The *peak brails* reeve through single blocks on the gaff, two on each side, generally span-blocks, and then through the throat brail blocks, as leaders, to the deck. The *throat brails* reeve through two triple blocks strapped to eye-bolts under the jaws of the gaff, one on each side, through the two other sheaves of which the peak brails lead. Each brail is a single rope, middled at the leach of the sail.

TACKS, SHEETS, CLEWLINES, &c.—It is much more convenient to have the tack and sheet blocks of the courses fastened to the clews of the courses by hooks. Then they can be unhooked when the sail is furled, and, in light weather, a single rope with a hook, called a *lazy sheet*, can be used, instead of the heavy tacks and sheets with their blocks. This is also much more convenient in clewing up. The *main tack* is rove *aft* through the block in the waterways, *forward* through the block on the sail, and the standing part hooks to the block on deck. The *fore tack* goes through a block on the bumpkin. The *sheets* of the courses have the after block hooked to an eye-bolt in the side, abaft the channels, and the forward one hooked to the clew of the sail, the running part reeving through a sheave-hole in the rail. The sheets of all the square sails but the courses run from the clew of the sail, through sheave holes in the

yard-arms, through the quarter blocks, down on deck. The *topsail sheets* are chain, are clasped to the clews of the sail, and are fitted with a gun-tackle purchase at the foot of the mast. The *topgallant* and *royal sheets* are single. The *topsail* and *topgallant clewlines* reeve through the quarter-blocks. The *royal clewlines* are single, and the topsail and topgallant are a gun-tackle purchase.

The *reef-tackles* of the topsails reeve *up* through blocks on the lower rigging, or futtock shrouds, *down* through the block on the yard, down the leach of the sail and through the block on the leach, and are made fast to the yard on their own parts, with a clinch, outside of everything.

The *clew garnets* reeve *out* through blocks under the quarters of the yard, then *up* through blocks at the clew, and the standing part is made fast to the yard, to the block, or to a strap. The *buntlines* of the courses reeve through double or triple blocks under the forward part of the top, down forward of the sail, sometimes through thimbles in the first reef-band, and are clinched to the foot of the sail. The *leachlines* reeve through single blocks on the yard, and are clinched to the leach of the sail. The *slabline* is a small rope rove through a block under the slings of the yard, and clinched to the foot of the sail. This is not much used in merchant vessels. The *topsail clewlines* lead like the clew-garnets of the courses. The *topsail buntlines* reeve forward through single blocks at the topmast-head, down through the thimbles of a lizard seized to the tye, just above the yard, and are clinched to the foot of the sail. The handiest way of reeving the *main bowline* is to have a single rope with the standing part hooked near the the foremast, and reeve it *out* through a heart in the bridle. This will answer for both sides. The *fore-bowline* may be rove through a single block at the heel of the jib-boom and hooked to the bridle. The bowlines to the other sails are toggled to the bridles and lead forward. Many vessels now dispense with all the bowlines except to the courses. This saves trouble, makes a ship look neater, and, if the sails are well cut, they will set taught enough in the leach, without bowlines.

CHAPTER IV.

TO RIG MASTS AND YARDS.

Rigging the shears—Taking in lowermasts and bowsprit—To rig a bowsprit—Getting the tops over the mast-heads—To send up a topmast—To get on a topmast cap—To rig a jibboom—To cross a lower yard—To cross a topgallant yard—To send up a topgallant mast—Long, short, and stump topgallant masts—To rig out a flying jibboom—To cross topgallant and royal yards—Skysail yards.

TAKING IN LOWER MASTS AND BOWSPRIT.—Shore up the beams upon which the heels of the shears will rest, if necessary from the keelson. Parbuckle the shears aboard, with their heads aft. Raise their heads upon the taffrail, cross them, and pass the shear-lashing. Lash the upper block of a threefold tackle under the cross, and secure the lower block to the breast-hooks, or to a toggle in the hawse-hole. You may also reeve and secure, in the same manner, a smaller purchase, which shall work clear of the first. Have two forward and two after guys clove-hitched to the shear head, with cleats to prevent their slipping. Get a girt-line on one shear-head and a small tackle on the other, to slue and cant the mast. Let the fall of the main tackle come through the middle sheave, to prevent the block's sluing in its strap. Reeve large heel tackles to rouse the shears aft with. Put long oak plank shoes under the heels; and, if it be necessary, clap a thwart-ship tackle upon the two heels, or reeve a lashing, and put a stout plank between them, and bowse taut; which will prevent too great a strain coming upon the water-ways. Take the main tackle fall to the capstan; heave round, haul on the forward guy and after heel tackles, and raise the shear to an angle of about eighty degrees with the deck, and so that the main purchase will hang plumb with the partners of the mizzenmast. Lash a garland to the forward part of the mast, above the centre, and toggle the purchase to it. Heave the mast in over the bulwarks; fit the trestle-trees and after chock; reeve girt-lines by which men may be hoisted when the mast is in; point the mast in, and lower away. Always take in the mizzenmast first. Get in the main and then the foremast in the same manner, rousing the shears forward, with their shoes, by means of the heel tackles. Having stepped and secured the foremast, carry the forward guys aft and rake the shears over the bows; toggle the lower block of the main tackle to a garland lashed to the upper part of the bowsprit inside of the centre. Put on the cap, and carry tackles or guys from the bowsprit-head to each cat-head, and clap on a heel tackle or guy. Heave the bowsprit, and direct it by the small tackles and guys.

To Rig a Bowsprit.—Lash collars for the fore stay, bobstays, and bowsprit shrouds, then for the spring stay, and put on the bees for the topmast stays; fit the man-ropes, pass the gammoning, and set up bobstays and shrouds.

To Get the Tops over the Mast-heads.—Place the top on deck abaft the mast; get a girt-line on each side of the mast-head, and pass the end of each under the top, through the holes in the after part; clinch them to their own parts, and stop them to the fore part of the top with slip-stops. Have a guy to the fore and another to the after part of the top. Make the ends of a span fast to the after corners of the top, and bend a girt-line from the mast-head to the bight of the span, and stop it to the forward part of the top. Sway away on the girt-lines. When the fore part of the top is above the trestle-trees, cut the span-stops, and when the after part is above them, cast off the slip-stops. When the lubber-hole is high enough to clear the mast-head, haul on the forward guy, and let the top hang horizontally by the girt-lines. Lower away, place and bolt it.

The fore and main tops are sent up from abaft, and the mizzen from forward. The tops may be got over without the span and girt-line, by stopping the two girt-lines first rove to the middle as well as to the fore part of the top, and cutting the upper stops first.

To send up a Topmast.—Get the topmast alongside, with its head forward. Lash a top-block to the head of the lower-mast; reeve a mast-rope through it, from aft forward, and bring the end down and reeve it through the sheave-hole of the topmast, hitching it to its own part a little below the topmast-head, and stopping both parts to the mast, at intervals. Snatch the rope and sway away. As soon as the head is through the lower cap, cast off the end of the mast-rope, letting the mast hang by the stops, and hitch it to the staple in the other end of the cap. Cast off the stops and sway away. Point the head of the mast between the trestle-trees and through the hole in the lower cap, the round hole of which must be put over the square hole of the trestle-trees. Lash the cap to the mast, hoist away, and when high enough, lower a little and secure the cap to the lowermast-head. (This is when it cannot be put on by hand). If the cross-trees are heavy, they may be placed in the following manner. Sway away until the topmast-head is a few feet above the lower cap. Send up the cross-trees by girt-lines, and let the after part rest on the lower cap and the forward part against the topmast. Lower away the topmast until the cross-trees fall into their place, and then hoist until they rest on the shoulders. Lash on the bolsters, get girt-lines on the cross-trees to send up the rigging, and then put it over the mast-head, first the shrouds, then

the backstays, and lastly the headstays. Sway the topmast on end, fid it, and set up the rigging.

To Get on a Topmast-Cap.—In vessels of the largest class, it may be necessary to send up the cap in the following manner, but it can usually be got up by hand. Or it may be fitted and the rigging put on over it. Send the cap up to the cross-trees by girt-lines, and place the round hole of the cap over the forward hole of the cross-trees; send aloft a topgallant studdingsail boom, and point its upper end through the holes in the cross-trees and cap, and lash the cap to it. Hook a tackle or girt-line to a strap on the lower end of the spar, and sway away until the cap is over the mast-head. Slue the spar so that the cap may come fair, lower away, and place the cap upon the mast-head. Unlash the spar and send it down.

To Rig Out a Jibboom.—Point the outer end through the collars of the stays. Reeve the heel-rope through a block at the bowsprit cap, through the sheave-hole at the heel of the boom, and secure the end to an eye-bolt in the cap on the opposite side. Rig the boom out until the inner sheave-hole is clear of the cap. Tar the boom-end, put on the foot-ropes and guys, and reeve the jibstay. Hoist up the martingale and rig it, and reeve the martingale stay and gaub-line. Rig the boom out to its place, and set up the jib and martingale stays.

To Cross a Lower Yard.—If the yard is alongside, reeve the yard rope through the jear block at the mast-head, make it fast to the slings of the yard, and stop it out to the yard-arm. Sway away, and cast off the stops as the yard comes over the side, and get the yard across the bulwarks. Lower yards are rigged now with iron trusses and quarter-blocks, which would be fitted before rigging the yard. Seize on the clew-garnet block, and put the rigging over the yard-arm; first the straps for the head-earings, then the foot-ropes, then the brace blocks or pennants, and last the eye of the lift. (The lifts, brace pennants, and foot-ropes are now spliced or hooked into rings with thimbles on an iron band, round the yard-arm, next the shoulders. In this way, there is no rope of any kind round the yard-arm.) Reeve the lifts and braces, get two large tackles from the mast-head to the quarters of the yard, and sway away on them and on the lifts, bearing off and sluing the yard by means of guys. Secure the yard by the iron trusses, and haul taut lifts and braces.

To Cross a Topsailyard. — As topsailyards now have chain tyes, there are no tye-blocks to seize on. The quarter-blocks are first seized on, and the parral secured at one end, ready to be passed. A single parral has an eye in each end, and one end is passed under the yard and over, and the eye seized to the standing part, close to

the yard. After the yard is crossed, the other end is passed round the mast, then round the yard, and seized in the same manner. To pass a double parral, proceed in the same manner, except that the seizings are passed so as to leave the eyes clear and above the standing part, and then take a short rope with an eye in each end, pass it round the mast, and seize the eyes to the eyes of the first long rope. The parral is wormed, served and leathered. The parral being seized at one end, put on the head-earing straps, the foot-ropes, Flemish horses, and brace blocks. Bend the yard-rope to the slings, stop it out to the yard-arm, and sway away until the yard is up and down; then put on the upper lift in the top and the lower lift on deck, and reeve the braces. Sway away, cast off the stops, and take in upon the lower lift as the yard rises, till the yard is square; then haul taut lifts and braces and pass the parral.

To Send up a Topgallantmast.—Most merchantmen carry *long topgallantmasts.* In these, the topgallant, royal and skysail masts are all one stick. *A short topgallantmast* is one which has cross-trees, and above which a fidded royal-mast may be rigged. *A stump topgallantmast* has no cross-trees, or means for setting a mast above it, and is carried only in bad weather. Some short topgallant masts are rigged with a *withe* on the after part of the mast-head, through which a sliding-gunter royalmast is run up, with its heel resting in a step on the topmast cap.

To send up a long topgallantmast, put the jack over the topmast cap, with a grommet upon its funnel for the eyes of the rigging to rest upon; send up the rigging by girtlines, and put the eyes over the jack, first the topgallant shrouds, backstays and stays, then the royal rigging in the same order, with a grommet, then the skysail stay and backstay, and lastly the truck. Reeve a top-rope forward through a block at the topmast-head through the hole in the cross-trees; through the sheave-hole at the foot of the topgallantmast; carry it up the other side, and make it fast to its own part at the mast-head; stop it along the mast, and bend a guy to the heel. Sway away, and point through the jack; put on the truck, and the skysail, royal and topgallant rigging in their order; slue the mast so as to bring the sheaves of the tyes fore-and-aft; cast off the end of the top-rope, the mast hanging by the stops; make it fast to an eye-bolt on the starboard side of the cap, and sway away. When high enough, fid the mast and set up the rigging.

A short topgallantmast is sent up like a topmast, the cross-trees got over in the same manner; and the fidded royal-mast is sent up like a long topgallantmast.

To Rig out a Flying Jibboom.—Ship the withe on the jibboom end, reeve a heel-rope through a block at the jibboom end, and bend

it to the heel of the flying jibboom, and stop it along, out to the end. Haul out on the heel-rope, point through the withe, put on the rigging, in the same order with that of the jibboom; reeve the guys, martingale, flying jib, royal and skysail stays; rig out, and set up the rigging. The heel of the boom rests against the bowsprit cap, and is lashed to the jibboom.

The flying jibboom should be rigged fully out before the foretopgallantmast is swayed on end.

To Cross a Topgallant Yard.—Seize on the parral and quarter-blocks; reeve the yard-rope through the sheave-hole of the topgallantmast, make it fast to the slings of the yard, and stop it out to the upper end. Sway away, and when the upper yard-arm has reached the topmast-head, put on the upper lift and brace; sway away again, put on the lower lift and brace, cast off all the stops, settle the yard down square by lifts and braces, and pass the parral lashing.

To Cross Royal Yards.—The royal yards are crossed in the same manner as the topgallant yards, except that in most merchantmen they would be sent up by the halyards instead of a yard-rope. If there is not a standing skysail, the quarter-blocks on the royal yard will be single.

Skysail Yards.—If the skysail is a standing sail, the yard is rigged like the royal yard, with lifts and braces, and the sail is fitted with sheets and clewlines; but if it is a flying skysail, the yard has neither lifts nor braces, and the clews of the sail are seized out to the royal-yard-arms. There are various ways of rigging a flying skysail, of which the following is believed to be as convenient as any. Let the royal stay go round the mast-head, with a traveller, above the yard, so that the stay may travel up and down the skysail mast. Seize a thimble into the stay, close against the forward part of the grommet; lead the skysail halyards through the thimble, and make them fast to the centre of the yard, which will need no parral, underneath the royal stay. Make fast the ends of two small ropes for downhauls, to the skysail yard, about half-way out on each yard-arm, and reeve them through small cleats on the after part of the royal yard, the same distance out on each yard-arm. These may be spliced into a single rope below the yard, which will go through a fair-leader in the cross-trees to the deck. By this means the skysail may be taken in or set without the necessity of sending a man aloft. Let go the halyards and haul on the downhaul, and the yard will be brought close down to the royal yard. To hoist it, let go the downhaul and royal stay, and haul on the halyards. When the royal is taken in, haul the skysail yard down with the royal yard, and furl the sail in with the royal.

CHAPTER V.

TO SEND DOWN MASTS AND YARDS.

To send down a royal yard—a topgallant yard—a topgallantmast—To house a topgallantmast—To send down a topmast—To rig in a jibboom.

To SEND DOWN A ROYAL YARD.—If the sail is bent to the yard, furl it, making the gaskets fast to the tye. Cast off the sheets and clewlines, and make them fast to the jack. Be careful to unreeve the clewlines through the quarter-blocks. Cast off the parral-lashing. Overhaul the tye a little, and stop it to the yard, just outside of the quarter-block. If stopped too far out, the yard will not hoist high enough to get the lower lift off. Sway away on the halyards, which will cant the yard and hoist it. When high enough, cast off the lower lift and brace (being careful not to let the brace go), and make them fast to the jack. Lower away, and as the upper yard-arm comes abreast of the jack, clap a stop round the yard and tye, near the yard-arm, and cast off the lift and brace, making them fast to the jack. Lower away to the deck.

If the halyards are not single, the yard must be sent down by a yard-rope, like the topgallant yard. In some vessels, instead of making the sheets and clewlines fast to the jack, overhand knots are taken in their ends, and they are let go. The sheets will run out to the topgallant yard-arms, and the clewlines will run to the fair-leaders in the cross-trees. In port, the main royal yard is sent down on the starboard side, and the fore and mizzen on the larboard; but at sea, the tye is stopped out on the lee side, and the yard sent down in any way that is the most convenient.

To SEND DOWN A TOPGALLANT YARD.—Cast off the sheets, bowlines, buntlines and clewlines, and make them fast to the cross-trees. Reeve a yard-rope through a jack-block at the mast-head, unhook the tye, cast off the parral-lashing, bend the yard-rope to the slings of the yard by a fisherman's bend, and stop it to the quarters of the yard. Sway away, and take off the lifts and braces, as with the royal yard.

To SEND DOWN A TOPGALLANTMAST.—Hook the top-block to the eye-bolt at the larboard side of the topmast cap; reeve the mast-rope through it, then through the sheave-hole in the foot of the topgallantmast, and hitch its end to the eye-bolt on the starboard side of the cap. Come up the rigging, stays and backstays, and guy the mast-head by them. Hoist a little on the mast-rope, and take out the fid. (The fid should always be fastened to the cross-trees or

trestle-trees, by a lanyard.) Lower away until the mast is a little short of being through the cap. Then seize or rack together both parts of the mast-rope just above the sheave-hole; cast off the end of the mast-rope, letting the mast hang by the stops, and hitch it round the mast-head to its own part, below the cap. Then lower away to the deck. If the rigging is to come on deck, round up the mast-rope for a girt-line; if it is to remain aloft, lash it to the topmast cap, render the shrouds through the cross-trees, and stop them up and down the topgallant rigging. Sheep-shank the stays and backstays, and set them hand-taut. If the topmast is also to be sent down, take off the topmast cap and send it on deck.

To House a Topgallantmast. — Proceed in the same manner, except that when the mast is low enough, belay the mast-rope, pass a heel-lashing through the fid-hole and round the topmast.

To Send Down a Topmast.—Hook the top-block, reeve the mast-rope through it and through the sheave-hole in the foot of the mast, and hitch it to the staple at the other side of the cap. Lead the fall through a snatch-block, to the capstan. Sling the lower yard, if it is to remain aloft, and unshackle the trusses, if they are of iron. Come up the rigging, stays and backstays, weigh the mast, take out the fid, and lower away. If the rigging is to remain aloft, lash the cross-trees to the lower cap. The rigging should be stowed away snugly in the top, and the backstays be snaked up and down the lower rigging.

To Rig in a Jibboom.—Reeve the heel-rope (if necessary), come up the stay, martingale stays and guys; unreeve the jib-stay, station hands at each guy, clear away the heel-lashing, haul in upon the guys, and light the boom on board. In most cases, the boom will come in without a heel-rope. Make fast the eyes of the rigging to the bowsprit cap, and haul all taut.

CHAPTER VI.

BENDING AND UNBENDING SAILS.

To bend a course—To send up a topsail by the halyards—by the buntlines—To bend a topgallant sail—a royal—a jib—a spanker—a spencer—To unbend a course— a topsail—a topgallant sail or royal—a jib—To send down a topsail or course in a gale of wind—To bend a topsail in a gale of wind—To bend one topsail or course, and send down the other at the same time.

To Bend a Course.—Stretch the sail across the deck, forward of the mast and under the yard; being careful to have the after part of the sail aft. Seize the clew-garnet blocks to the clews; also the tack and sheet blocks, unless they go with hooks or clasps. Reeve the buntlines through the thimbles of the first reef-band forward, if they are made to go so, and toggle their ends to the foot of the sail, or carry them through the eyelet-holes and clinch them to their own parts. Reeve the clew-garnets and leachlines; carry the bights of the buntlines under the sail, and rack them to their own parts; stop the head of the sail to the buntlines below the rackings; put robands to each eyelet-hole in the head of the sail; fasten the head and reef-earings to their cringles, reeving the end of the reef-earings through the head-cringle and taking a bowline with them to their standing parts, and hitching the head-earings to the buntlines. Sway away on the buntlines, leachlines and clew-garnets; when the sail is up, pass the head-earings, reeving *aft* through the straps on the yard, and *forward* through the head-cringle. Haul out on the earings, making the sail square by the glut, and pass the earings round the yard, over and under, through the head-cringle at each turn, and make the end fast around the first turns. If the sail is new, ride down the head rope on the yard, and freshen the earings. Make fast the head of the sail to the jackstay by robands, and cast the stops off the buntlines.

To Bend a Topsail.—Make fast the head and reef-earings to their cringles, passing the end of each reef-earing through the cringle above its own and making it fast by a bowline to its own part. Put robands to each eyelet-hole in the head. If the sail is to be sent up by the topsail halyards, lay it on deck abaft the foot of the mast, make it up with its head and foot together, having the head and first reef cringles together and out, and also the bowline cringle and the clews out. Bight the sail in three parts on a pair of slings, having the end of the sail that belongs on the opposite yard-arm on top. Have the fly-block of the topsail halyards above the top, and rack the runner to the topmast backstay or after shroud. Hook the

lower block to the slings around the sail, hoist the sail up into the top, cast off the slings, unhook the halyards, and pass the upper end of the sail round forward of the mast ready for bending. (If the vessel is rolling or pitching, with a stiff breeze, the sail may be guyed and steadied as it goes up, by hooking a snatch-block, moused, to the slings around the sail, passing the hauling part of the halyards through it, and through another snatch-block on deck.) Get the clewlines, buntlines, sheets, bowlines, and reef-tackles ready for bending, the clove hooks of the sheets being stopped to the topmast rigging. Hook or clasp the sheets to the clews, reeve the clewlines and reef-tackles, toggle the bowlines, clinch or toggle the buntlines to the foot of the sail, and stop the head to the buntlines. Hoist on the buntlines and haul out on the reef-tackles, bringing the sail to the yard, and then pass the head-earings and make fast the robands as for a course. If the sail is to be sent up by the buntlines, lay the sail on the deck and forward of the mast, overhaul the buntlines down forward of the yard, on each side of the topmast stay and on the same side of the lower stay. Clinch the ends to the foot of the sail, bight them around under the sail, and rack the bights to their standing parts, and stop the head of the sail to the standing parts below the rackings. Bend one bowline to the centre of the sail, to guy it in going aloft. Have the earings bent and secured as before described, and the bights of the head-earings hitched to the buntlines. Sway it up to the top, and haul the ends in on each side of the mast; reeve the clewlines and reef-tackles, make fast the bowlines and sheets, the ends of which, if chain, should be racked to the topmast rigging, ready to be made fast to the clews. The gear being bent, hoist on the buntlines, haul out on the reef-tackles, pass the head-earings, cut the stops of the buntlines, and make fast the robands. Middle the sail on the yard by the glut, or by the centre cringle.

To Bend Topgallant Sails and Royals.—These are generally bent to their yards on deck; the royals always. After being bent to the yard, they are furled, with their clews out, ready for sending aloft. If the topgallant sail is to be bent aloft, send it up to the topmast cross-trees by the clewlines, or by the royal halyards; and there bend on the sheets, clewlines, buntlines, and bowlines, and bring the sail to the yard as with a topsail.

To Bend a Jib.—Bend the jib halyards round the body of the sail, and the downhaul to the tack. Haul out on the downhaul, hoisting and lowering on the halyards. Seize the tack to the boom, the hanks to the luff of the sail, and the halyards to its head. Reeve the downhaul up through the hanks and make it fast to the head of the sail. Seize the middle of the sheet-pennant to the clew.

In some vessels the hanks are first seized to the sail, and the jibstay unrove, brought in-board, and passed down through the hanks, as the sail is sent out, rove in its place and set up. This is more troublesome, and wears out the jibstay.

To Bend a Spanker.—Lower the gaff, and reeve the throat-rope through the hole in the gaff under the jaws, and secure it. Sometimes the head of the luff fits with a hook. Then haul out the head of the sail by the peak-earing, which is passed like the head-earing of a topsail. When the head-rope is taut, pass the lacings through the eyelet-holes, and round the jackstay. Seize the bights of the throat and peak brails to the leach, at distances from the peak which will admit of the sail's being brailed up taut along the gaff, and reeve them through their blocks on the gaff, and at the jaws, on each side of the sail. The foot brail is seized to the leach just above the clew. Seize the luff of the sail to the hoops or hanks around the spanker mast, beginning with the upper hoop and hoisting the gaff as they are secured. The tack is hooked or seized to the boom or to the mast. Hook on the outhaul tackle. This is usually fitted with an eye round the boom, rove through a single block at the clew, and then through a sheave-hole in the boom.

Some spankers are bent with a peak outhaul; the head traversing on the jackstay of the gaff.

The Fore and Main Spencers are bent like the spanker, except that they have no boom, the clew being hauled aft by a sheet, which is generally a gun-tackle purchase, hooked to an eyebolt in the deck.

To Unbend a Course.—Haul it up, cast off the robands, and make the buntlines fast round the sail. Ease the earings off together, and lower away by the buntlines and clew-garnets. At sea, the lee earing is cast off first, rousing in the lee body of the sail, and securing it by the earing to the buntlines.

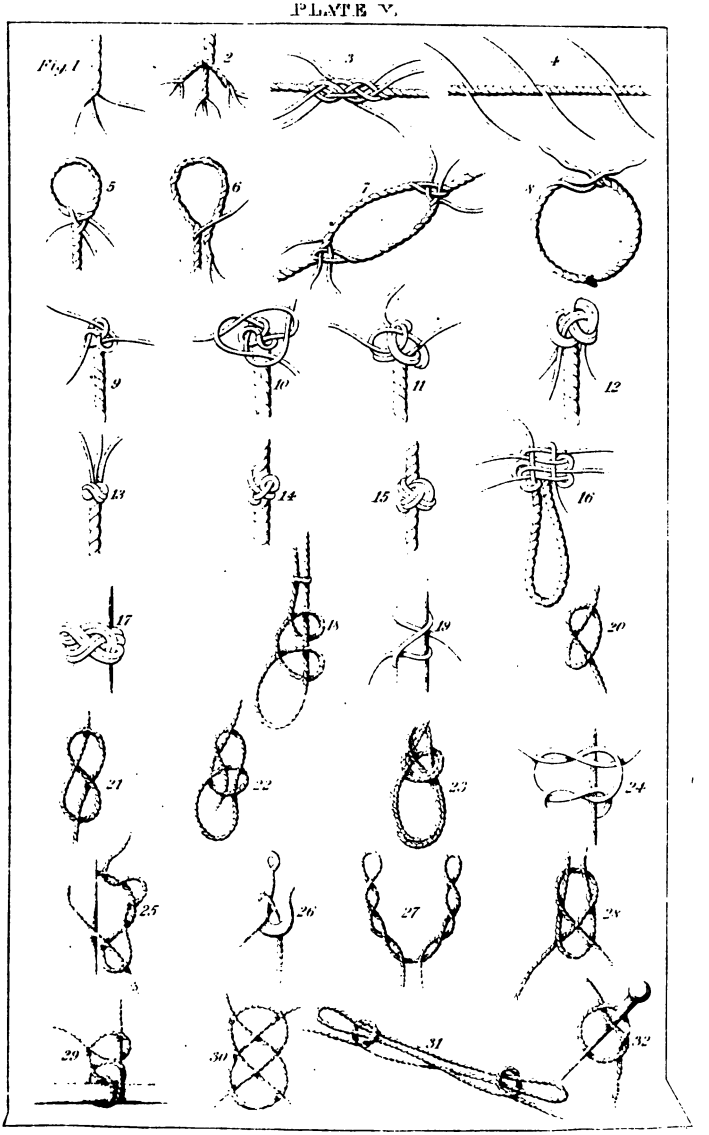
To Unbend a Topsail.—Clew it up, cast off the robands, secure the buntlines round the sail, unhook the sheets, and unreeve the clewlines and reef-tackles; ease off the earings, and lower by the buntlines.

A *topgallant sail* is unbent in the same manner, and sent down by the buntlines. A *royal* is usually sent down with the yard.

To Unbend a Jib.—Haul it down, cast off the hank seizings and the tack-lashing, cast off and unreeve the downhaul and make it fast round the sail, and cast off the sheet-pennant lashings. Haul aboard by the downhaul, hoisting clear by the halyards.

The rules above given are for a vessel in port, with squared yards. If you are at sea, and it is blowing fresh, and the topsail or course is reefed, to send it down, you must cast off a few robands and

PLATE V.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reef-points, and pass good stops around the sail; then secure the buntlines also around it, and cast off all the robands, reef-points, and reef-earings. Bend a line to the lee head-earing and let it go, haul the sail well up to windward, and make fast the lee earing to the buntlines. Get a hauling line to the deck, forward; ease off the weather earing, and lower away.

To bend a new topsail in a gale of wind, it has been found convenient to make the sail up with the reef-bands together, the points all being out fair, to pass several good stops round the sail, and send up as before. This will present less surface to the wind. One course may be sent up as the other goes down, by unbending the buntlines from the foot of the old sail, passing them down between the head of the sail and the yard, bending them to the foot of the new sail, and making the new sail up to be sent aloft by them, as before directed. Run the new sail up to the yard abaft the old one, and send the old one down by the leachlines and the head-earings, bent to the topmast studdingsail halyards, or some other convenient rope.

One topsail may be sent up by the topsail halyards, got ready for bending, and brought to the yard, while the old one is sent down by the buntlines.

CHAPTER VII.

WORK UPON RIGGING—ROPE, KNOTS, SPLICES, BENDS, HITCHES.

Kinds of rope — Spunyarn — Worming — Parcelling — Service — Short splice — Long splice—Eye splice — Flemish eye — Spindle eye — Cut splice — Grommet — Single and double wall—Matthew Walker—Single and double diamond—Spritsail sheet knot—Stopper knot—Shroud knot—French shroud knot—Buoy-rope knot—Half-hitches—Clove hitch—Overhand knot — Figure-of-eight — Bowline — Running bowline—Bowline-upon-a-bight — Square knot — Timber hitch — Rolling hitch — Blackwall hitch—Cat's paw—Sheet bend—Fisherman's bend—Carrick bend—Bowline bend—Sheep-shank — Selvagee — Marlinspike hitch — Round seizing — Throat seizing — Stopping — Nippering — Racking — Pointing — Snaking — Grafting — Foxes—Spanish foxes—Gaskets—Sennit—To bend a buoy-rope—To pass a shear-lashing.

Those ropes in a ship which are stationary are called *standing rigging*, as shrouds, stays, backstays, &c. Those which reeve through blocks or sheave-holes, and are hauled, and let go, are called the *running rigging*, as braces, halyards, buntlines, clewlines, &c.

A rope is composed of threads of hemp or other stuff. These threads are called *yarns*. A number of these yarns twisted together

form a *strand*, and three or more strands twisted together form the rope.

The ropes in ordinary use on board a vessel are composed of three strands, laid RIGHT HANDED (1.) or, as it is called, *with the sun*. Occasionally a piece of large rope will be found laid up in four strands, also *with* the sun. This is generally used for standing rigging, tacks, sheets, &c., and is sometimes called *shroud-laid*.

A CABLE-LAID ROPE (2.) is composed of nine strands, and is made by first laying them into three ropes of three strands each, *with* the sun, and then laying the three ropes up together into one, left-handed, or *against* the sun. Thus, cable-laid rope is like three small common ropes laid up into one large one. Formerly, the ordinary three-stranded right-hand rope was called *hawser-laid*, and the latter *cable-laid*, and they will be found so distinguished in the books; but among seafaring men now, the terms *hawser-laid* and *cable-laid* are applied indiscriminately to nine-strand rope, and the three-stranded, being the usual and ordinary kind of rope, has no particular name, or is called right-hand rope.

Right-hand rope must be coiled *with* the sun, and cable-laid rope *against* the sun.

SPUNYARN is made by twisting together two or more yarns taken from old standing rigging, and is called two-yarn or three-yarn spunyarn, according to the number of yarns of which it is composed. Junk, or old rigging, is first unlaid into strands, and then into yarns, and the best of these yarns made up into spunyarn, which is used for worming, serving, seizing, &c. Every merchant vessel carries a spunyarn-winch, for the manufacturing of this stuff, and in making it, the wheel is turned *against* the sun, which lays the stuff up with the sun.

WORMING a rope is filling up the divisions between the strands, by passing spunyarn along them, to render the surface smooth for parcelling and serving.

PARCELLING a rope is wrapping narrow strips of canvas about it, well tarred, in order to secure it from being injured by rain-water lodging between the parts of the service when worn. The parcelling is put on *with* the lay of the rope.

SERVICE is the laying on of spunyarn, or rather small stuff, in turns round the rope, close together, and hove taut by the use of a serving-board for small rope, and serving-mallet for large rope. Small ropes are sometimes served without being wormed, as the crevices between the strands are not large enough to make the surface very uneven; but a large rope is always wormed and parcelled before being served. The service is put on *against* the lay of the rope.

SPLICING is putting the ends of ropes together by opening the strands and placing them into one another, or by putting the strands of the ends of a rope between those of the bight.

A SHORT SPLICE. (3.) Unlay the strands for a convenient length; then take an end in each hand, place them one within the other, and draw them close. Hold the end of one rope and the three strands which come from the opposite rope fast in the left hand, or, if the rope be large, stop them down to it with a rope-yarn. Take the middle strand, which is free, pass it *over* the strand which is first next to it, and through *under* the second, and out between the second and third from it, and haul it taut. Pass each of the six strands in the same manner; first those on one side, and then those on the other. The same operation may be repeated with each strand, passing each *over* the third from it, and *under* the fourth, and through; or, as is more usual, after the ends have been stuck once, untwist each strand, divide the yarns, pass one-half as above described, and cut off the other half. This tapers the slice.

A LONG SPLICE. (4.) Unlay the ends of two ropes to a distance three or four times greater than for a short splice, and place them within one another as for a short splice. Unlay one strand for a considerable distance, and fill up the interval which it leaves with the opposite strand from the other rope, and twist the ends of these two together. Then do the same with two more strands. The two remaining strands are twisted together in the place where they were first crossed. Open the two last named strands, divide in two, take an overhand knot with the opposite halves, and lead the ends over the next strand and through the second, as the whole strands were passed for the short splice. Cut off the other two halves. Do the same with the others that are placed together, dividing, knotting, and passing them in the same manner. Before cutting off any of the half strands, the rope should be got well upon a stretch. Sometimes the whole strands are knotted, then divided, and the half strands passed as above described.

AN EYE SPLICE. (5.) Unlay the end of a rope for a short distance, and lay the three strands upon the standing part, so as to form an eye. Put one end through the strand next to it. Put the next end over that strand and through the second; and put the remaining end through the third strand, on the other side of the rope. Taper them, as in the short splice, by dividing the strands and sticking them again.

A FLEMISH EYE. (6.) Take the end of a rope and unlay one strand. Form an eye by placing the two remaining ends against the standing part. Pass the strand which has been unlaid over the end and in the intervals round the eye, until it returns down the

standing part, and lies under the eye with the strands. The ends are then scraped down, tapered, marled, and served over with spun-yarn.

An Artificial or Spindle Eye.—Unlay the end of a rope and open the strands, separating each ropeyarn. Take a piece of wood, the size of the intended eye, and hitch the yarns round it. Scrape them down, marl, parcel, and serve them. This is now usually called a Flemish Eye.

A Cut Splice. (7.) Cut a rope in two, unlay each end as for a short splice, and place the ends of each rope against the standing part of the other, forming an oblong eye, of the size you wish. Then pass the ends through the strands of the standing parts, as for a short splice.

A Grommet. (8.) Take a strand just unlaid from a rope, with all its turns in it, and form a ring of the size you wish, by putting the end over the standing part. Then take the long end and carry it twice round the ring, in the crevices, following the lay, until the ring is complete. Then take an overhand knot with the two ends, divide the yarns, and stick them as in a long splice.

A Single Wall Knot. (9.) Unlay the end of a rope. Form a bight with one strand, holding its end down to the standing part in your left hand. Pass the end of the next strand round this strand. Pass the remaining strand round the end of the second strand, and up through the bight which was made by the first strand. Haul the ends taut carefully, one by one.

A Single Wall, Crowned. (10.) Make the single wall as before, and lay one end over the top of the knot. Lay the second end over the first, and the third over the second and through the bight of the first.

A Double Wall. (11.) Make the single wall slack, and crown it, as above. Then take one end, bring it underneath the part of the first walling next to it, and push it up through the same bight. Do the same with the other strands, pushing them up through two bights. Thus made, it has a double wall and a single crown.

A Double Wall, Double Crowned. (12.) Make the double wall, single crowned, as above. Then lay the strands by the sides of those in the single crown, pushing them through the same bight in the single crown, and down through the double walling. This is sometimes called a Tack Knot, or a Topsail Sheet Knot.

A Matthew Walker Knot. (13.) Unlay the end of a rope. Take one strand round the rope and through its own bight; then the next strand underneath, through the bight of the first, and through its own bight; and the third strand underneath, through both the other bights, and through its own bight.

A SINGLE DIAMOND KNOT. (14.) Unlay the end of a rope for a considerable distance, and with the strands form three bights down the side of the rope, holding them fast with the left hand. Take the end of one strand and pass it with the lay of the rope over the strand next to it, and up through the bight of the third. Take the end of the second strand over the third and up through the bight of the first. Take the end of the third strand over the first and up through the bight of the second. Haul taut, and lay the ends up together.

A DOUBLE DIAMOND KNOT. (15.) Make a single diamond, as above, without laying the ends up. Follow the lead of the single knot through two single bights, the ends coming out at the top of the knot. Lead the last strand through two double bights. Haul taut, and lay the ends up.

A SPRITSAIL SHEET KNOT. (16.) Unlay two ends of a rope, and place the two parts together. Make a bight with one strand. Wall the six strands together, like a single walling made with three strands; putting the second over the first, and the third over the second, and so on, the sixth being passed over the fifth and through the bight of the first. Then haul taut. It may be *crowned* by taking two strands and laying them over the top of the knot, and passing the other strands alternately over and under those two, hauling them taut. It may be *double walled* by next passing the strands under the wallings on the left of them, and through the small bights, when the ends will come up for the second crowning; which is done by following the lead of the single crowning, and pushing the ends through the single walling, as with three strands, before described. This is often used for a *stopper knot.*

A STOPPER KNOT.—Single wall and double wall, without crowning, and stop the ends together.

A SHROUD KNOT.—Unlay the ends of two ropes, and place the strands in one another, as for a short splice. Single wall the strands of one rope round the standing part of the other, against the lay. Open the ends, taper, marl, and serve them.

A FRENCH SHROUD KNOT.—Place the ends of two ropes as before. Lay the ends of one rope back upon their own part, and single wall the other three strands round the bights of the first three and the standing part. Taper the ends, as before.

A BUOY-ROPE KNOT.—Unlay the strands of a cable-laid rope, and also the small strands of each large strand. Lay the large ones again as before, leaving the small ones out. Single and double wall the small strands (as for a stopper knot) round the rope, worm them along the divisions, and stop their ends with spunyarn.

A *TURKS-HEAD. (17.) This* is worked upon a rope with a piece

of small line. Take a clove-hitch slack with the line round the rope. Then take one of the bights formed by the clove-hitch and put it over the other. Pass the end under, and up through the bight which is underneath. Then cross the bights again, and put the end round again, under, and up through the bight which is underneath. After this, follow the lead, and it will make a turban, of three parts to each cross.

Two Half-Hitches. (18.) Pass the end of a rope round the standing part and bring it up through the bight. This is a half-hitch. Take it round again in the same manner for two half-hitches.

A Clove-Hitch (19.) is made by passing the end of a rope round a spar, over, and bringing it under and round behind its standing part, over the spar again, and up through its own part. It may then, if necessary, be stopped or hitched to its own part: the only difference between two half-hitches and a clove-hitch being that one is hitched round its own standing part, and the other is hitched round a spar or another rope.

An Overhand Knot. (20.) Pass the end of a rope over the standing part, and through the bight.

A Figure-of-Eight. (21.) Pass the end of a rope over and round the standing part, up over its own part, and down through the bight.

A Bowline Knot. (22.) Take the end of a rope in your right hand, and the standing part in your left. Lay the end over the standing part, and with the left hand make a bight of the standing part over it. Take the end under the lower standing part, up over the cross, and down through the bight.

A Running Bowline.—Take the end round the standing part, and make a bowline upon its own part.

A Bowline upon a Bight. (23.) Middle a rope, taking the two ends in your left hand, and the bight in your right. Lay the bight over the ends, and proceed as in making a bowline, making a small bight with your left hand of the ends, which are kept together, over the bight which you hold in your right hand. Pass the bight in your right hand round under the ends and up over the cross. So far, it is like a common bowline, only made with double rope instead of single. Then open the bight in your right hand and carry it over the large bights, letting them go through it, and bring it up to the cross and haul taut.

A Square Knot. (24.) Take an overhand knot round a spar. Take an end in each hand and cross them on the same side of the standing part upon which they came up. Pass one end round the *other, and bring it* up through the bight. This is sometimes called

a REEF-KNOT. If the ends are crossed the wrong way, sailors call it a GRANNY-KNOT.

A TIMBER HITCH. (25.) Take the end of a rope round a spar, lead it under and over the standing part, and pass two or more round-turns round its own part.

A ROLLING HITCH.—Pass the end of a rope round a spar. Take it round a second time, nearer to the standing part. Then carry it across the standing part, over and round the spar, and up through the bight. A strap or a tail-block is fastened to a rope by this hitch.

A bend, sometimes called a *rolling hitch*, is made by two round-turns round a spar and two half-hitches round the standing part; but the name is commonly applied to the former hitch.

A BLACKWALL HITCH. (26.) Form a bight by putting the end of a rope across and under the standing part. Put the bight over the hook of a tackle, letting the hook go through it, the centre of the bight resting against the back of the hook, and the end jammed in the bight of the hook, by the standing part of the rope.

A CAT'S PAW. (27.) Make a large bight in a rope, and spread it open, putting one hand at one part of the bight and the other at the other, and letting the standing part and end come together. Turn the bight over from you, three times, and a small bight will be formed in each hand. Bring the two small bights together, and put the hook of a tackle through them both.

A SHEET BEND. (28.) Pass the end of a rope up through the bight of another, round both parts of the other, and under its own part.

A FISHERMAN'S BEND. (29.) Used for bending studdingsail halyards to the yard. Take two turns round the yard with the end. Hitch it round the standing part and both the turns. Then hitch it round the standing part alone.

A CARRICK BEND. (30.) Form a bight by putting the end of a rope over its standing part. Take the end of a second rope and pass it *under* the standing part of the first, *over* the end, and *up* through the bight, *over* its own standing part, and *down* through the bight again.

A BOWLINE BEND.—This is the most usual mode of bending warps, and other long ropes or cables, together. Take a bowline in the end of one rope, pass the end of the other through the bight, and take a bowline with it upon its own standing part. Long lines are sometimes bent together with half-hitches on their own standing parts, instead of bowlines, and the ends seized strongly down.

A SHEEP-SHANK. (31.) Make two long bights in a rope, which shall overlay one another. Take a half-hitch over the end of each bight with the standing part which is next to it.

A SELVAGEE.—Lay rope yarns round and round in a bight, and marl them down with spunyarn. These are used for neat block-straps, and as straps to go round a spar for a tackle to hook into, for hoisting.

A MARLINSPIKE HITCH.—Lay the marlinspike upon the seizing-stuff, and bring the end over the standing part so as to form a bight. Lay this bight back over the standing part, putting the marlinspike down through the bight, under the standing part, and up through the bight again.

TO PASS A ROUND SEIZING.—Splice a small eye in the end of the stuff, take the other end round both parts of the rope, and reeve it through the eye. Pass a couple of turns, then take a marlinspike-hitch, and heave them taut. Pass six, eight, or ten turns in the same manner, and heave them taut. Put the end through under these turns and bring it out between the two last turns, or through the eye, and pass five, seven, or nine turns (one less than the lower ones) directly over these, as riders. The riders are not hove so taut. Pass the end up through the seizings, and take two cross turns round the whole seizing between the two, passing the end through the last turn, and heaving taut. If the seizing is small cordage, take a wall-knot in the end; if spunyarn, an overhand knot. The cross turns are given up now in nearly all vessels. After the riding turns are passed, the end is carried under the turns, brought out at the other end, and made fast snugly to the standing part of the rigging.

A THROAT SEIZING, where rigging is turned in, is passed and made fast like the preceding, there being no cross turns. A neat way to pass a throat seizing is to pass the turns rather slack, put a strap upon the end of the rigging, take a handspike or heaver to it and bear it down, driving home the seizing with a mallet and small fid.

STOPPING, is fastening two parts of a rope together as for a round seizing, without a crossing.

NIPPERING, is fastening them by taking turns crosswise between the parts, to jam them; and sometimes with a round turn before each cross. These are called *racking turns.* Pass *riders* over these and fasten the end.

POINTING.—Unlay the end of a rope and stop it. Take out as many yarns as are necessary, and split each yarn in two, and take two parts of different yarns and twist them up taut into *nettles.* The rest of the yarns are combed down with a knife. Lay half the nettles down upon the scraped part, the rest back upon the rope, and pass three turns of twine taut round the part where the nettles separate, and hitch the twine, which is called the *warp.* Lay the

nettles backwards and forwards as before, passing the warp, each time. The ends may be whipped and snaked with twine, or the nettles hitched over the warp and hauled taut. The upper seizing must be snaked. If the upper part is too weak for pointing, put in a piece of stick.

SNAKING a seizing, is done by taking the end under and over the outer turns of the seizing alternately, passing over the whole. There should be a marline-hitch at each turn.

GRAFTING.—Unlay the ends of two ropes and put them together as for a short splice. Make nettles of the strands as before. Pass the warp and nettles belonging to the lower strands along the rope, as in pointing; then the nettles of the upper strands in the same manner. Snake the seizing at each end.

FOXES are made by twisting together three or more rope-yarns by hand, and rubbing them hard with tarred canvas. *Spanish foxes* are made of one rope-yarn, by unlaying it and laying it up the other way.

GASKETS.—Take three or four foxes, middle them, and plait them together into *sennit*. This is done by bringing the two outside foxes alternately over to the middle. The outside ones are laid with the right hand, and the remainder are held and steadied with the left. Having plaited enough for an eye, bring all the parts together, and work them all into one piece, in the same manner. Take out foxes at proper intervals. When finished, one end must be laid up, the other plaited, and the first hauled through. The name *sennit* is generally given to rope-yarns plaited in the same manner with these foxes. Sennit made in this way must have an odd number of parts. FRENCH SENNIT is made with an even number, taken over and under every other time.

TO BEND A BUOY-ROPE.—Reeve the end through the eye in the other end, put it over one arm of the anchor, and haul taut. Take a hitch over the other arm. Or, take a clove-hitch over the crown, stopping the end to its own part, or to the shank.

TO PASS A SHEAR-LASHING.—Middle the lashing and take a good turn round both legs at the cross. Pass one end up and the other down, around and over the cross, until half of the lashing is expended. Then ride both ends back again on their own parts and knot them in the middle. Frap the first and riding turns together on each side with sennit.

CHAPTER VIII.

BLOCKS AND PURCHASES.

Parts of a Block—Made and morticed blocks—Bull's-eye—Dead-eye—Sister-block—Snatch-block — Tail-block — Whip — Gun-tackle — Luff-tackle—Whip-upon-Whip—Luff-upon-Luff—Watch or tail-tackle—Runner-tackle.

BLOCKS are of two kinds, *made* and *morticed*. A MADE-BLOCK consists of four parts,—the *shell*, or outside; the *sheave*, or wheel on which the rope turns; the *pin*, or axle on which the wheel turns; and the *strap*, either of rope or iron, which encircles the whole, and keeps it in its place. The sheave is generally strengthened by letting in a piece of iron or brass at the centre, called a *bush*.

A MORTICED-BLOCK is made of a single block of wood, morticed out to receive a sheave.

All blocks are single, double, or threefold, according to the number of sheaves in them.

There are some blocks that have no sheaves; as follows: a *bull's-eye*, which is a wooden thimble without a sheave, having a hole through the centre and a groove round it; and a *dead-eye*, which is a solid block of wood made in a circular form, with a groove round it, and three holes bored through it, for the lanyards to reeve through.

A SISTER-BLOCK is formed of one solid piece of wood, with two sheaves, one above the other, and between the sheaves a score for the middle seizing. These are oftener without sheaves than with.

SNATCH-BLOCKS are single blocks, with a notch cut in one cheek, just below the sheave, so as to receive the bight of a fall without the trouble of reeving and unreeving the whole. They are generally iron-bound, and have a hook at one end.

A TAIL-BLOCK is a single block, strapped with an eye-splice, and having a long end left, by which to make the block fast temporarily to the rigging. This tail is usually selvageed, or else the strands are opened and laid up into sennit, as for a gasket.

A TACKLE is a purchase formed by reeving a rope through two or more blocks, for the purpose of hoisting.

A WHIP is the smallest purchase, and is made by a rope rove through one single block.

A GUN-TACKLE PURCHASE is a rope rove through two single blocks and made fast to the strap of the upper block. The parts of all tackles between the fasts and a sheave, are called the *standing*

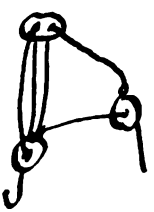
parts; the parts between sheaves are called *running parts;* and the part upon which you take hold in hoisting is called the *fall.*

A WHIP-UPON-WHIP is where the block of one whip is made fast to the fall of another.

A LUFF-TACKLE PURCHASE is a single [illegible]

Flour Whip

Single Spanish Burton



Double Spanish Burton

[illegible] topsail—course—jib—To stow a jib in sooth—To reef a topsail—course—To turn out reefs—To set a topgallant studding-sail—To take-in do.—To set a topmast studding-sail—To take in do.—To set a lower studding-sail—To take-in do.

TO LOOSE A SAIL.—Lay out to the yard-arms and cast off the gaskets, beginning at the outermost and coming in.* When the gaskets are cast off from both yard-arms, then let go the bunt gasket (and jigger, if there be one), and overhaul the buntlines and leachlines. In loosing a topsail in a gale of wind, it is better to cast off the quarter-gaskets (except the one which confines the clew), before those at the yard-arms. Royals and topgallant sails generally have

* If only one yard-arm is loosed at a time, let the lee one be loosed first.

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BLOCKS AND PURCHASES.

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SNATCH-BLOCKS are single blocks, with a notch cut in one cheek, just below the sheave, so as to receive the bight of a fall without the trouble of reeving and unreeving the whole. They are generally iron-bound, and have a hook at one end.

A TAIL-BLOCK is a single block, strapped with an eye-splice, and having a long end left, by which to make the block fast temporarily to the rigging. This tail is usually selvageed, or else the strands are opened and laid up into sennit, as for a gasket.

A TACKLE is a purchase formed by reeving a rope through two or more blocks, for the purpose of hoisting.

A WHIP is the smallest purchase, and is made by a rope rove through one single block.

A GUN-TACKLE PURCHASE is a rope rove through two single blocks and made fast to the strap of the upper block. The parts of all tackles between the fasts and a sheave, are called the *standing*

parts; the parts between sheaves are called *running parts;* and the part upon which you take hold in hoisting is called the *fall.*

A WHIP-UPON-WHIP is where the block of one whip is made fast to the fall of another.

A LUFF-TACKLE PURCHASE is a single and a double block; the end of the rope being fast to the upper part of the single block, and the fall coming from the double block. A luff-tackle upon the fall of another luff-tackle is called *luff-upon-luff.*

A WATCH-TACKLE or TAIL-TACKLE is a luff-tackle purchase, with a hook in the end of the single block, and a tail to the upper end of the double block. One of these purchases, with a short fall, is kept on deck, at hand, in merchant vessels, and is used to clap upon standing and running rigging, and to get a strain upon ropes.

A RUNNER-TACKLE is a luff applied to a runner, which is a single rope rove through a single block, hooked to a thimble in the eye of a pennant.

A SINGLE BURTON is composed of two single blocks, with a hook in the bight of the running part. Reeve the end of your rope through the upper block, and make it fast to the strap of the fly-block. Then make fast your hook to the bight of the rope, and reeve the other end through the fly-block for a fall. The hook is made fast by passing the bight of the rope through the eye of the hook and over the whole.

CHAPTER IX.

MAKING AND TAKING-IN SAIL.

To loose a sail—To set a course—topsail—topgallant sail—royal—skysail—jib—spanker—spencer—To take in a course—topsail—topgallant sail, or royal—skysail—jib—spanker—To furl a royal—topgallant sail—topsail—course—jib—To stow a jib in cloth—To reef a topsail—course—To turn out reefs—To set a topgallant studding-sail—To take-in do.—To set a topmast studding-sail—To take in do.—To set a lower studding-sail—To take-in do.

TO LOOSE A SAIL.—Lay out to the yard-arms and cast off the gaskets, beginning at the outermost and coming in.* When the gaskets are cast off from both yard-arms, then let go the bunt gasket (and jigger, if there be one), and overhaul the buntlines and leachlines. In loosing a topsail in a gale of wind, it is better to cast off the quarter-gaskets (except the one which confines the clew), before those at the yard-arms. Royals and topgallant sails generally have

* *If only one yard-arm is loosed at a time,* let the lee one be loosed first.

one long gasket to each yard-arm; in which case it is not necessary to go out upon the yard, but the gaskets, after being cast off, should be fastened to the tye by a bowline.

To Set a Course.—Loose the sail and overhaul the buntlines and leachlines. Let go the clew-garnets and overhaul them, and haul down on the sheets and tacks. If the ship is close-hauled, ease off the lee brace, slack the weather-lift and clew-garnet, and get the tack well down to the water-ways. If it is blowing fresh and the ship light-handed, take it to the windlass. When the tack is well down, sharpen the yard up again by the brace, top it well up by the lift, reeve and haul out the bowline, and haul the sheet aft.

If the wind is quartering, the mainsail is carried with the weather clew hauled up and the sheet taken aft. With yards squared, the mainsail is never carried, but the foresail may be to advantage, especially if the swinging booms are out; in which case the heavy tack and sheet-blocks may be unhooked, and the *lazy sheets* hooked on and rove through a single tail-block, made fast out on the boom. This serves to extend the clews, and is called a *pazaree* to the foresail.

To Set a Topsail.—Loose the sail, and keep one hand in the top to overhaul the rigging. Overhaul well the buntlines, clewlines, and reef-tackles, let go the topgallant sheets and topsail braces, and haul home on the sheets. Merchant vessels usually hoist a little on the halyards, so as to clear the sail from the top, then belay them and get the lee sheet chock home; then haul home the weather sheet, shivering the sail by the braces to help it home, and hoist on the halyards until the leaches are well taut, taking a turn with the braces, if the wind is fresh, and slacking them as the yard goes up.

After the sail is set, it is sometimes necessary to get the sheets closer home. Slack the halyards, lee brace, and weather bowline, clap the watch-tackle upon the lee sheet first, and then the weather one, shivering the sail by the braces if necessary. Overhaul the clewlines and reef-tackles, slack the topgallant sheets, and hoist the sail up, taut leach, by the halyards.

To Set a Topgallant Sail or Royal.—Haul home the lee sheet, having one hand aloft to overhaul the clewlines, then the weather sheet, and hoist up, taut leach, by the halyards. While hauling the sheets home, if on the wind, brace up a little to shake the sail, take a turn with the weather brace, and let go the lee one; if before the wind, let go both braces; and if the wind is quartering, the lee one.

To Set a Flying Skysail.—If bent in the manner described in this book, let go the brails and royal stay, and hoist on the halyards.

To Set a Jib, Flying Jib, or Foretopmast Staysail.—Cast off *the gasket, hoist* on the halyards, and trim down the sheet.

To SET A SPANKER.—Hoist on the topping-lifts, make fast the weather one, and overhaul the lee one. Let go the brails, and haul out on the outhaul. Be careful not to let the throat brail go before the head and foot. Trim the boom by the sheets and guys, and the gaff by the vangs.

To SET A SPENCER.—Take the sheet to the deck on the lee side of the stay, let go the brails, haul on the sheet, and trim the gaff by the vangs.

To TAKE-IN A COURSE.—If the wind is light, and there are hands enough, let go the tack, sheet, and bowline, and haul up on the clew-garnets, buntlines, and leachlines, being careful not to haul the buntlines tant until the clews are well up. If light-handed, or the wind fresh, let go the bowline, and ease off the tack (being careful to let the bowline go before the tack), and haul up the weather clew. Then ease off the sheet and haul up on the lee clew-garnet, and the buntlines and leachlines.

To TAKE-IN A TOPSAIL.—The usual mode of taking in a topsail when coming to anchor in light winds, is to lower away on the halyards and haul down on the clewlines and reef-tackles (if the latter run in the way described in this book), until the yard is down by the lifts, rounding in on the weather brace, and hauling taut to leeward, when the yard is square. Then let go the sheets and haul up on the clewlines and buntlines. A better way is to start the sheets, clew about one-third up, then let go the halyards and take the slack in.

If the wind is fresh, and the yard braced up, lower away handsomely on the halyards, get the yard down by the clewlines and reef-tackles, rounding in on the weather brace and steadying the yard by both braces. Then let go the weather sheet and haul up to windward first. The weather clew being up, let go the lee sheet and haul up by the clewline and buntlines, keeping the clew in advance of the body of the sail.

Sometimes, if the weather brace cannot be well rounded in, as if a ship is weak-handed, the sail may be clewed up to leeward a little, first. In which case, ease off the lee sheet, and haul up on the clewline; ease off the lee brace and round the yard in; and when the lee clew is about half up, ease off the weather sheet and haul the weather clew chock up. Haul the buntlines up after the weather clew, and steady the yard by the braces. There is danger in clewing up to leeward first that the sail may be shaken and jerked so as to split, before the weather clew is up; whereas, if clewed up to windward first, the lee clew will keep full, until the lee sheet is started.

When coming to anchor, it is the best plan to haul the clews about half up before the halyards are let go.

In taking in a close-reefed topsail in a gale of wind, the most general practice is to clew up to windward, keeping the sail full; then lower away the halyards, and ease off the lee sheet; clew the yard down, and haul up briskly on the lee clewline and the buntlines, bracing to the wind the moment the lee sheet is started.

To Take-in a Topgallant Sail or Royal.—If the wind is light, and from aft or quartering, let go the halyards and clew down, squaring the yard by the braces. Then start the sheets and clew up, and haul up the buntlines. If the yard is braced up, the old style was to let go the halyards, clew down and round in on the weather brace; clewing up to windward first, then start the lee clew, and haul up the lee clewline and the buntlines. But the practice now is to clew up to leeward first, which prevents the slack of the sail getting too much over to leeward, or foul of the clewline block under the yard, as it is apt to, if the weather clew is hauled up first.

If the wind is very fresh, and the vessel close-hauled, a good practice is to let go the lee sheet and halyards, and clew down, rounding in at the same time on the weather brace. Then start the weather sheet, and haul the weather clew chock up. Haul up the buntlines and steady the yard by the braces.

To Take-in a Skysail.—If bent in the way described in this book, which is believed to be the most convenient, let go the halyards, haul down on the brails, and haul taut the royal stay.

To Take-in a Jib.—Let go the halyards, haul on the downhaul, easing off the sheet as the halyards are let go.

To Take-in a Spanker.—Ease off the outhaul, and haul well up on the lee brails, taking in the slack of the weather ones. Mind particularly the lee throat-brail. Haul the boom amid-ships and steady it by the guys, lower the topping lifts, and square the gaff by the vangs.

To Furl a Royal.—This sail is usually furled by one person, and is that upon which green hands are practised. For the benefit of beginners, I will give particular directions. When you have got aloft to the topgallantmast-head, see, in the first place, that the yard is well down by the lifts, and steadied by the braces; then see that both clews are hauled chock up to the blocks, and if they are not, call out to the officer of the deck, and have it done. Then see your yard-arm gaskets clear. The best way is to cast them off from the tye, and lay them across, between the tye and the mast. This done, stretch out on the weather yard-arm, get hold of the weather leach, and bring it in to the slings taut along the yard. Hold the clew up with one hand, and with the other haul all the sail through *the clew,* letting it fall in the bunt. Bring the weather clew a little

over abaft the yard, and put your knee upon it. Then stretch out to leeward and bring in the lee leach in the same manner, hauling all the sail through the clew, and putting the clew upon the yard in the same way, and holding it there by your other knee. Then prepare to make up your bunt. First get hold of the foot-rope and lay it on the yard and abaft; then take up the body of the sail, and lay it on the yard, seeing that it is all fairly through the clews. Having got all the sail upon the yard, make a *skin* of the upper part of the body of the sail, large enough to come well down abaft and cover the whole bunt when the sail is furled. Lift the skin up, and put into the bunt the slack of the clews (not too taut), the leach and foot-rope, and the body of the sail; being careful not to let it get forward under the yard or hang down abaft. Then haul your bunt well upon the yard, smoothing the skin, and bringing it down well abaft, and make fast the bunt-gasket round the mast, and the jigger, if there be one, to the tye. The glut will always come in the middle of the bunt, if it is properly made up. Now take your weather yard-arm gasket and pass it round the yard, three or four times, haul taut, and make it fast to the mast; then the lee one in the same manner. Never make a long gasket fast to its own part round the yard, for it may work loose and slip out to the yard-arm. Always pass a gasket *over* the yard and down abaft, which will help to bring the sail upon the yard.

A Topgallant Sail is furled in the same manner, except that it usually requires two men, in a large vessel; in which case, each man takes a yard-arm, and they make the bunt up together. If there are buntlines and a jigger, the bunt may be triced well up, by bending the jigger to the bight of a buntline, and having it hauled taut on deck.

To Furl a Topsail or Course.—The sail being hauled up, lay out on the yard, the two most experienced men standing in the slings, one on each side of the mast, to make the bunt up. The light hands lay out to the yard-arms, and take the leach up and bring it taut along the yard. In this way the clews are reached and handed to the men in the bunt, and the slack of the sail hauled through them and stowed away on and abaft the yard. The bunt being made up fairly on the yard against the mast, and the skin prepared, let it fall a little forward, and stow all the body of the sail, the clews, bolt-rope, and blocks, away in it; then, as many as can get hold, lend a hand to haul it well upon the yard. Overhaul a buntline a little, bend the jigger to it, and trice up on deck. Bring the skin down well abaft, see that the clews are not too taut, pass the bunt gasket, cast the jigger off, and make it fast slack to the tye. Then pass the yard-arm gaskets, hauling the sail

well upon the yard, and passing the turns over the yard, and down abaft. If the sail has long gaskets, make them fast to the tye; if short, pass them in turns close together, and make them fast to their own parts, jammed as well as possible.

To Furl a Jib.—Go out upon the weather side of the boom. See your gasket clear for passing. The handiest way usually is, to make it up on its end, take a hitch over the whole with the standing part, and let it hang. Haul the sail well upon the boom, getting the clew, and having the sheet pennant hauled amidships. Cast the hitch off the gasket, take it in your hand, and pass two or three turns, beginning at the head; haul them taut; and so on to the clew. Pass the turns over and to windward. This will help to bring the sail upon the boom and to windward. Make the end fast to the stay, to the withe, or to the boom inside the cap, in any way that shall keep it from slipping back, which it might do if made fast to its own part round the boom. If there is but one hand on the boom, the first turns may be hauled taut enough to keep the sail up for the time; then, after the gasket is fast, go out to the head, and haul each turn well taut, beating the sail down with the hand. Be careful to confine the clew well.

To Stow a Jib in Cloth.—Haul the jib down snugly, and get it fairly up on the boom. Overhaul the after leach until you come to the first straight cloth. Gather this cloth over the rest of the sail on the boom, stopping the outer end of the cloth with a rope-yarn round the jibstay. If the jib halyards are double, stop the block inside the sail. Cover the sail well up with the cloth, stopping it at every two feet with rope-yarns round the sail and boom. If you are to lie in port for a long time, cast off the pennant, stow the clew on the boom, snugly under the cloth, which will be stopped as before with rope-yarns.

To Reef a Topsail.—Round in on the weather brace, ease off the halyards, and clew the yard down by the clewlines and reef-tackles. Brace the yard in nearly to the wind, and haul taut both braces. Haul out the reef-tackles, make fast, and haul taut the buntlines. Before going upon the yard, see that it is well down by the lifts. Let the best men go to the yard-arms, and the light hands remain in the slings. Cast adrift the weather earing, pass it *over* the yard-arm outside the lift, down abaft and under the yard, and *up* through the reef-cringle. Haul well out, and take a round-turn with the earing round the cringle. Then pass several turns round the yard and through the cringle, hauling them well taut, passing the turns *over* the yard, down abaft and under and *up* through the cringle.* Having expended nearly all the earing, hitch the remain-

* Be careful to pass the turns clear of the topgallant sheets.

der round the two first parts, that go outside the lift, jamming them together and passing several turns round them both to expend the rope. The bare end may be hitched to these two parts or to the lift. The men on the yard light the sail out to windward by the reef-points, to help the man at the weather yard-arm in hauling out his earing. As soon as the weather earing is hauled out and made secure by a turn or two, the word is passed—"Haul out to leeward," and the lee earing is hauled out till the band is taut along the yard, and made fast in the same manner. Then the men on the yard tie the reef-points with square knots, being careful to take the after points clear of the topgallant sheets.

In reefing, a good deal depends upon the way in which the yard is laid. If the yard is braced too much in, the sail catches flat aback and cannot be hauled out, besides the danger of knocking the men off the foot-ropes. The best way is to shiver the sail well till the yard is down, then brace it in with a slight full, make the braces fast, and luff up occasionally and shake the sail while the men are reefing. If you are going before the wind, you may, by putting your helm either way, and bringing the wind abeam, clew the yard down as the sail lifts, and keep her in this position, with the yard braced sharp up, until the sail is reefed; or, if you are not willing to keep off from your course, and the wind is very fresh, clew down and clew up, and reef as before directed.

All the reefs are taken in the same way except the *close reef.* In close-reefing, pass your earing *under* the yard, up abaft and over, and *down* through the cringle. Pass all your turns in the same manner; and bring the reef-band well under the yard in knotting, so as to cover the other reefs.

As soon as the men are off the yard, let go the reef-tackles, clew-lines, buntlines, and topgallant sheets; man the halyards, let go the lee brace, slack off the weather one, and hoist away. When well up, trim the yard by the braces, and haul out the bowlines. A reefed sail should never be braced quite sharp up, and if there is a heavy sea and the vessel pitches badly, ease the braces a little, that the yard may play freely, and do not haul the leach too taut.

To Reef a Course.—As a course generally has no reef-tackle, you must clew it up as for furling, according to the directions before given, except that the clews are not hauled chock up. Lay out on the yard and haul out the earings, and knot the points as for the first reef of a topsail, seeing them clear of the topsail sheets. If a long course of bad weather is anticipated, as in doubling the southern capes, or crossing the Atlantic in winter, reef-tackles are rove for the courses.

If there are any studdingsail booms on the lower or topsail yards, they must be triced up before reefing.

To Turn-out Reefs.—For a topsail, haul taut the reef-tackles and buntlines, settle a little on the halyards, if necessary; lay aloft, and cast off all the reef-points, beginning at the bunt and laying out. Be careful to cast all off before slacking up the earing; for, when there is more than one reef, a point may be easily left, if care is not taken. Have one hand at each earing, cast off all the turns but enough to hold it, and when both earings are ready, ease off both together. Pass the end of the earing through the cringle next above its own, and make it fast slack to its own part by a bowline knot. Lay in off the yard, let go reef-tackles, clewlines, buntlines, and topgallant sheets; overhaul them in the top and hoist away, slacking the braces and trimming the yard. The reefs of a course are turned out a good deal in the same manner; slacking up the sheet and tack, if necessary, and, when the earings are cast off, let go clewgarnets, buntlines, and leachlines, board the tack, and haul aft the sheet.

To Set a Topgallant Studdingsail.—This sail is always set from the top; the sail, together with the tack and halyards in two coils, being kept in the top. If there is but one hand aloft, take the end of the halyards aloft, *abaft* everything, and reeve it *up* through the block at the topgallantmast-head, and *down* through the sheave-hole or block at the topgallant yard-arm, *abaft* the sheet, and bring it into the top, forward of the rigging, and make it fast to the forward shroud. Take the end of your tack out on the topsail-yard, *under* the brace, reeve it *up* through the block at the end of the topgallant studdingsail boom, bring it in *over* the brace, overhauling a plenty of it so as to let the boom go out, and hitch it to the topmast rigging while you rig your boom out. Cast off the heel-lashing and rig your boom out to the mark, slue the boom with the block up and make fast round the yard. (The easiest way of passing the boom-lashing is to take it over the yard and put a bight up between the head-rope and yard; then take the end back over the yard and boom and through the bight, and haul taut. This may be done twice, if necessary, and then hitch it round all parts, between the boom and the yard.) The boom being rigged out and fast, take the end of your tack down into the top and hitch it to the forward shroud. Then take the coil of the tack and throw the other end down on deck, outside of the rigging and backstays. (It is well, in throwing the coil down, to keep hold of the bight with one hand, for otherwise, if they should miss it on deck, you will have to rig in your boom.) Throw down the hauling end of your halyards abaft and inside everything. Now get your sail clear for sending out. *Lay the yard* across the top, forward of the rigging, with the outer

end out. Bend your halyards to the yard by a fisherman's bend, about one-third of the way out. Take your tack under the yard and bend it by a sheet-bend to the outer clew, and pay down the sheet and downhaul through the lubber-hole. All being clear for hoisting, sway away on the halyards on deck, the men in the top guying the sail by the sheet and downhaul, the latter being hauled taut enough to keep the outer clew up to the inner yard-arm. (Sometimes it is well to make up the downhaul as is done with the downhaul of the topmast studdingsail.) When the sail is above the brace, haul out on the tack, sway the yard chock up by the halyards, and trim the sheet down. Make the end of the downhaul fast slack.

A weather topgallant or topmast studdingsail should be set abaft the sail, and a lee one forward of the sail. Therefore, in setting a lee topgallant studdingsail it is well to send it out of the top with a turn in it, that is, with the inner yard-arm slued forward and out, so that when the tack and sheet are hauled upon, the inner yard-arm will swing forward of the topgallant sail.*

Small-sized vessels have no downhaul to the topgallant studdingsails. This saves confusion, and is very well if the sail is small.

To Take-in a Topgallant Studdingsail.—Let go the tack and clew up the downhaul, dipping the yard abaft the leach of the topgallant sail, if it is forward. Lower away handsomely on the halyards, hauling down on the sheet and downhaul. When the yard is below the topsail brace, lower roundly and haul into the top, forward of the rigging.

If the sail is taken in temporarily, stand the yard up and down and becket it to the middle topmast shroud; make the sail up, hitch the bight of the tack and halyards to the forward shroud, and haul up the sheet and downhaul. If everything is to be stowed away, unreeve the tack and halyards, and coil them away separately in the top; also coil away the sheets and downhaul, and stop all the coils down by hitches passed through the slats of the top. Rig the boom in and make it fast to the tye. Sometimes the halyards are unrove from the yard-arm and rounded up to the span-block, with a knot in their end.

To Set a Topmast Studdingsail.—The topmast studdingsail halyards are generally kept coiled away in the top. Take the end up, reeve it *up* through the span-block at the cap, and *out* through the block at the topsail yard-arm, and pay the end down to the forecastle, forward of the yard and outside the bowline. Pay the hauling end down through the lubber-hole. Reeve your lower halyards.

* It will assist this operation to keep hold of the outer leach until the sail is clear of the top.

These are usually kept coiled away in the top, with the pennant, which hooks to the cap of the lower mast. Hook the pennant, reeve the halyards *up* through the pennant block, *out* through the block on the boom end, and pay the end down to the forecastle. Pay the hauling end down *forward* of the top. (Some vessels keep their topmast studdingsail tacks coiled away at the yard-arm, and hitched down to the boom and yard. This is a clumsy practice, and saves no time or trouble. The best way is to unreeve them whenever the boom is to be rigged in, and coil them away in the bow of the long-boat, or elsewhere. There is no more trouble, and less liability to confusion, in reeving them afresh, than in coiling them away and clearing again on the yard-arms.) Carry your tack outside the backstays and lower rigging, clear of everything, out upon the lower yard under the brace; reeve it *forward* through the tack-block at the boom-end, first sluing the block up, and pay the end down forward of the yard. Rig the boom out to the mark and lash it. Get the studdingsail on the forecastle clear for setting. Bend the halyards to the yard, about one-half of the way out. Hitch the end of the downhaul over the inner yard-arm by the eye in its end, reeve it through the lizard on the outer leach, and through the block at the outer clew abaft the sail. Bend the tack to the outer clew, and take a turn with the sheet. Clew the yard down by the downhaul, and make the downhaul up just clear of the block, by a cats-paw doubled and the bight of the running part shoved through the bight of all the parts, so that hauling on it may clear it and let the yard go up. Hoist on the halyards until the sail is above the lower yard, guying it by the sheet and downhaul, then haul out on the tack until the clew is chock out to the boom-end, hoist on the halyards, jerking the downhaul clear, and trim down the sheet.

To Take-in a Topmast Studdingsail.—Lower away handsomely on the halyards, clewing the yard down to the outer clew by the downhaul. Slack up the tack, and lower away on the halyards, hauling down well on the sheet and downhaul, till the sail is in upon the forecastle. The sail may be made up on the forecastle, and the end of the tack and halyards made fast forward, if it is to be soon set again. If not, cast off all, unreeve your tack, hauling from aft, and coil it away. Unreeve the halyards, or round them up to the block at the mast-head with a knot in their end. Rig the boom in, and lash it to the slings.

To Set a Lower Studdingsail.—Before rigging out the topmast studdingsail boom, the lower halyards should always be rove, as before directed. Reeve the inner halyards *out* through a small single block under the slings of the lower yard, and through another *about two*-thirds of the way out, and pay the end down upon the

forecastle for bending. Get the studdingsail clear, bend the outer halyards to the yard, and the inner halyards to the inner cringle at the head of the sail. Reeve the outhaul through the block at the swinging boom-end, and bend the forward end to the outer clew of the sail. Hook the topping-lift and forward guy to the boom, and top up on it. Haul on the forward guy, and ease off the after one, slacking away a little on the topping-lift, until the boom is trimmed by the lower yard; then make fast the guys and lift. Haul well taut the fore lift and brace, and belay. Take a turn with one sheet, hoist away on the outer halyards, and when about one-third up, clear the downhaul, haul chock out on the outhaul, and hoist well up by the halyards, which will serve as a lift to the topmast studding-sail boom; and then set taut on the inner halyards and trim down the sheet. The practice now is, and it is found most convenient, to set the sail before rigging out the boom; then clap on the outhaul and forward guy, and trim the boom by the lower yard.

To Take-in a Lower Studdingsail.—Let go the outhaul, and haul on the clewline till the outer clew is up to the yard. Then lower away the outer halyards, and haul in on the sheet and clew-line. When the sail is in over the rail, lower away the inner halyards. If the booms are to be rigged in, cast off all the gear; making the bending end of the outhaul fast inboard, and unreeving the outer and inner halyards, or running the outer up to the pennant block, and the inner up to the yard block, with knots in their ends. Ease off the forward guy with a turn, haul in on the after guy, topping well up by the lift, and get the boom alongside. Rig in the topmast studdingsail boom before unreeving the outer halyards. It is a convenient practice, when the swinging boom is alongside, to hook the topping-lift to a becket or thimble at the turning in of the fore swifter, and the forward guy to a strap and thimble on the spritsail yard.

In strong winds it is well to have a boom-brace-pennant fitted to the topmast studdingsail boom-end with a single block, making a whip purchase, the hauling part leading to the gangway, and belaying at the same pin with the tack; or else, the brace may lead to the gangway, and the tack be brought in through blocks on the yard, and lead down on deck, beside the mast. The former mode is more usual.

The topmast studdingsail is sometimes made with a reef in it, to be carried with a single-reefed topsail; in which case it is reefed on deck to the yard and sent out as before.

CHAPTER X.

GENERAL PRINCIPLES OF WORKING A SHIP.

Action of the water upon the rudder—Headway—Sternway—Action of the wind upon the sails—Head-sails—After-sails—Centre of gravity or rotation—Turning a ship to or from the wind.

A SHIP is acted upon principally by the rudder and sails. When the rudder is fore-and-aft, that is, on a line with the keel, the water runs by it, and it has no effect upon the ship's direction. When it is changed from a right line to one side or the other, the water strikes against it, and forces the stern in an opposite direction. For instance, if the helm is put to the starboard, the rudder is put off the line of the keel, to port. This sends the stern off to the starboard, and, of course, the ship turning on her centre of gravity, her head goes in an opposite direction, to port. If the helm is put to port, the reverse will follow, and the ship's head will turn off her course to starboard. Therefore the helm is always put in the opposite direction from that in which the ship's head is to be moved.

Moving the rudder from a right line has the effect of deadening the ship's way more or less, according as it is put at a greater or less angle with the keel. A ship should therefore be so balanced by her sails that a slight change of her helm may answer the purpose.

If a vessel is going astern, and the rudder is turned off from the line of the keel, the water, striking against the back of the rudder, pushes the stern off in the same direction in which the rudder is turned. For instance, if sternway is on her, and the helm is put to the starboard, the rudder turns to port, the water forces the stern in the same direction, and the ship's head goes off to the starboard. Therefore, when sternway is on a vessel, put the helm in the same direction in which the head is to be turned.

A current or tide running astern, that is, when the ship's head is toward it, will have the same effect on the rudder as if the ship were going ahead; and when it runs forward, it will be the same as though the ship were going astern.

It will now be well to shew how the sails act upon a ship, with reference to her centre of rotation. Suppose a vessel to be rigged with three sails, one in the forward part, one at the centre, and the third at the after part, and her left or larboard side to be presented *to the wind,* which we will suppose to be abeam, or at right angles

with the keel. If the head sail only were set, the effect would be that the wind would send the vessel a little ahead and off to the starboard on her centre of rotation, so as to bring her stern slowly round to the wind. If the after sail only were set, the vessel would shoot ahead a little, her stern would go off to the starboard and her head come up into the wind. If only the centre sail were set, the effect would be the same as if all three of the sails were set, and she would go ahead in a straight line. So far, we have supposed the sails to be set *full;* that is, with their tacks forward and their sheets aft. If they were all set *aback*, the vessel would go astern nearly, if the rudder were kept steady, in a straight line. If the head sail only is set and aback, she will go astern and round upon her axis, with her head from the wind, much quicker than if full. So, if the after sail alone were set and aback, she would go astern, and her head would come suddenly into the wind.

These principles of the wind acting upon the sails, and the water upon the rudder, are the foundation of the whole science of working a ship. In large vessels the sails are numerous, but they may all be reduced to three classes, viz., head sails, or those which are forward of the centre of gravity or rotation, having a tendency to send the ship's head off from the wind; after sails, or those abaft the centre of rotation, and which send the stern off and the head toward the wind; and lastly, centre sails, which act equally on each side the centre of rotation, and do not turn the ship off her course one way or the other. These classes of sails, if set aback, tend to stop the headway and send the ship astern, and also to turn her off her course in the same direction as when set full, but with more rapidity. The further a sail is from the centre of rotation, the greater is its tendency to send the ship off from the line of her keel. Accordingly, a jib is the strongest head sail, and a spanker the strongest after sail.

The centre of rotation is not necessarily at the centre of the ship. On the contrary, as vessels are now built, it may not be much abaft that part of the deck to which the main tack is boarded. For the main breadth, or dead-flat, being there, the greatest cavity will also be there, and of course the principal weight of the cargo should centre there, as being the strongest part. Therefore the centre of rotation will greatly depend upon proper stowage. If the ship is much by the stern, the centre of rotation will be carried aft, and if by the head, it will be carried forward. The cause of this is, that when loaded down by the stern, her after sails have but little effect to move her stern against the water, and a very slight action upon the forward sails will send her head off to leeward, as she is there light and high in the air. Accordingly, to keep her in a straight line, the press of sail is required to be further aft, or, in other words, the

centre of rotation is further aft. If a ship is loaded down by the head, the opposite results follow, and more head and less after sail is necessary.

A ship should be so stowed, and have her sails so trimmed, that she may be balanced as much as possible, and not be obliged to carry her helm much off the line of her keel, which tends to deaden her way. If a ship is stowed in her best sailing trim, and it is found, when on a wind, that her head tends to windward, obliging her to carry a strong weather helm, it may be remedied by taking in some after sail, or adding head sail. So, if she carries a lee helm, that is, if her head tends to fly off from the wind, it is remedied by taking in head or adding after sail. Sometimes a ship is made to carry a weather helm by having too much head sail set aloft. For, if she lies much over on a wind, the square sails forward have a tendency to press her downwards and raise her proportionally abaft, so that she meets great resistance from the water to leeward under her bows, while her stern, being light, is easily carried off; which, of course, requires her to carry a weather helm.

The general rules, then, for turning a ship are these: to bring her head to the wind,—put the helm to leeward, and bring the wind to act as much as possible on the after sails, and as little as possible on the head sails. This may be done without taking in any sail, by letting go the head sheets, so that those sails may lose their wind, and by pointing the head yards to the wind, so as to keep the head sails shaking. At the same time keep the after sails full, and flatten in the spanker sheet; or, if this is not sufficient, the after sails may be braced aback, which will send the stern off and the head to windward. But as this makes back sails of them, and tends to send the vessel astern, there should be either head or centre sails enough filled to counteract this and keep headway upon her. On the other hand, to turn the head off from the wind, put the helm to windward, shiver the after sails, and flatten in the head sheets. Brace the head yards aback if necessary, being careful not to let her lose headway if it can be avoided.

The vessel may be assisted very much in going off or coming to, by setting or taking in the jib and spanker; which, if the latter is fitted with brails, are easily handled.

CHAPTER XI.

TACKING, WEARING, BOXING, &c.

Tacking without fore-reaching—Tacking against a heavy sea—Hauling off all—To trim the yards—Flattening in—Missing stays—Wearing—under courses—under a mainsail—under bare poles—Box-hauling—short round—Club-hauling—Drifting in a tideway—Backing and filling in do.—Clubbing in do.

TACKING.—Have the ship so suited with sails that she may steer herself as nearly as possible, and come to with a small helm. Keep her a good full, so that she may have plenty of headway. *Ready, About!* Send all hands to their stations. The chief mate and one, two, or more of the best men, according to the size of the vessel, on the forecastle, to work the head sheets and bowlines and the fore tack; two, or more good men (one usually a petty officer, or an older and trusty seaman) to work the main tack and bowline. The second mate sees the lee fore and main braces clear and ready for letting go, and stands by to let go the lee main braces, which may all be belayed to one pin. Put one hand to let go the weather cross-jack braces, and others to haul in to leeward; the cook works the fore sheet, and the steward the main; station one or more at the spanker sheet and guys; and the rest at the weather main braces.

Ease the helm down gradually; *Helm's a-lee!* and let go the jib-sheet and fore-sheets. As soon as the wind is parallel with the yards, blowing directly upon the leaches of the square sails, so that all is shaking, *Raise tacks and sheets!* and let go the fore and main tacks and main sheet, keeping the fore and main bowline fast. As soon as her head is within a point or a point and a half of the wind, *Mainsail haul!* let go the lee main and weather cross-jack braces, and swing the after yards round. While she is head to the wind, and the after sails are becalmed by the head sails, get the main tack down and sheet aft, and right your helm, using it afterwards as her coming to or falling off requires. As soon as she passes the direction of the wind, shift your jib sheets over the stays, and when the after sails take full, or when she brings the wind four points on the other bow, and you are sure of paying off sufficiently, *Let go and haul!* brace round the head yards briskly, down fore tack and aft the sheet, brace sharp up and haul your bowlines out, and trim down your head sheets.

It is best to haul the mainsail just before you get the wind right ahead, for then the wind, striking the weather leaches of the after sails, forces them round almost without the braces, and you will

have time to brace up and get your tack down and sheet aft, when she has payed off on the other side.

If she falls off too rapidly while swinging your head yards, so as to bring the wind abeam or abaft, '*Vast bracing!* Ease off head sheets and put your helm a-lee; and as she comes up, meet her and brace sharp up. If, on the other hand (as sometimes happens with vessels which carry a strong weather helm), she does not fall off after the after sails take, be careful not to haul your head yards until she is fully round; and if she should fly up into the wind, let go the main sheet, and, if necessary, brail up the spanker and shiver the cross-jack yards.

In staying, be careful to right your helm before she loses headway.

To Tack without Fore-reaching, as in a narrow channel, when you are afraid to keep head-way. If she comes slowly up to windward, haul down the jib and get your spanker-boom well over to windward. As you raise tacks and sheets, let go the lee fore topsail brace, being careful to brace up again as soon as she takes aback. Also, hoist the jib, and trim down, if necessary, as soon as she takes on the other side.

Tacking against a Heavy Head Sea.—You are under short sail, there is a heavy head sea, and you doubt whether she will stay against it. Haul down the fore topmast staysail, ease down the helm, and raise fore sheet. When within about a point of the wind's eye, let go main tack and sheet, lee braces and after bowlines, and *Mainsail haul!* If she loses her headway at this time, shift your helm. As soon as she brings the wind on the other bow, she will fall off rapidly by reason of her sternway, therefore shift your helm again to meet her, and *Let go and haul!* at once. Brace about the head yards, but keep the weather braces in, to moderate her falling off. When she gets headway, right the helm, and as she comes up to the wind, brace up and haul aft.

Tacking by Hauling off All.—This can be done only in a smooth sea, with a light working breeze, a smart vessel and strong crew. Man all the braces. Let her come up head to the wind, and fall off on the other tack, shifting the helm if she gathers sternway. When you get the wind about five points on the other bow, *Haul off all!* let go all the braces and bowlines and swing all the yards at once. Right the helm, board tacks and haul aft sheets, brace up and haul out.

To Trim the Yards when Close-hauled.—In smooth water, with a light breeze, brace the lower yards sharp up, and trim the upper yards each a trifle in abaft the one below it. If you have a pretty stiff breeze, brace the topsailyard in about half a point more than the lower yard, and the topgallant-yard half a point more than the topsailyard, and so on. If you have a strong breeze and

a topping sea, and especially if reduced to short sail, brace in your lower yards a little, and the others proportionally. This will prevent the vessel going off bodily to leeward; and if she labours heavily, the play of the mast would otherwise carry away the braces and sheets, or spring the yards.

Missing Stays.—If after getting head to the wind she comes to a stand and begins to fall off before you have hauled your mainyard, flatten in your jibsheets, board foretack, and haul aft foresheet; also ease off spankersheet, or brail up the spanker, if necessary. When she is full again, trim the jib and spankersheets, and when she has recovered sufficient headway, try it again. If, after coming head to the wind, and after the afteryards are swung, she loses headway and refuses to go round, or begins to fall off on the same tack on which she was before, and you have shifted the helm without effect, haul up the mainsail and spanker, square the after yards, shift your helm again a-lee, so as to assist her in falling off, and brace round the head yards so as to box her off. As she fills on her former tack, brace up the after yards, brace round the head yards, sharp up all, board tacks, haul out and haul aft.

Wearing.—Haul up the mainsail and spanker, put the helm up, and, as she goes off, brace in the after yards. If there is a light breeze, the rule is to keep the mizzentopsail lifting, and the maintopsail full. This will keep sufficient headway on her, and at the same time enable her to fall off. But if you have a good breeze and she goes off fast, keep both the main and mizzentopsails lifting. As she goes round, bringing the wind on her quarter and aft, follow the wind with your after yards, keeping the mizzentopsail lifting, and the main either lifting or full, as is best. After a vessel has fallen off much, the less headway she has the better, provided she has enough to give her steerage. When you have the wind aft, raise foretack and sheet, square in the headyards, and haul down the jib. As she brings the wind on the other quarter, brace sharp up the after yards, haul out the spanker, and set the mainsail. As she comes to on the other tack, brace up the headyards, keeping the sails full, board foretack and aft the sheet, hoist the jib, and meet her with the helm.

To Wear under Courses.—Square the crossjack-yards, ease off mainbowline and tack, and haul up the weatherclew of the mainsail. Ease off the mainsheet, and haul up the leeclaw, and the buntlines and leachlines. Square the mainyards and put the helm a-weather. As she falls off, let go the fore bowline, ease off the foresheet, and brace in the foreyard. When she gets before the wind, board the fore and maintacks on the other side, and haul aft the mainsheet, *but keep the* weather braces in. As she comes to on

the other side, ease the helm, trim down the foresheet, brace up and haul out.

To Wear under a Mainsail.—Vessels lying-to under this sail generally wear by hoisting the foretopmast-staysail, or some other head sail. If this cannot be done, brace the crossjack-yards to the wind, and, if necessary, send down the mizzentopmast and the crossjack-yard. Brace the headyards full. Take an opportunity when she has headway, and will fall off, to put the helm up. Ease off the mainsheet, and, as she falls off, brace in the mainyard a little. When the wind is abaft the beam, raise the maintack. When she is dead before it, get the other maintack down as far as possible; and when she has the wind on the other quarter, ease the helm, haul aft the sheet, and brace up.

To Wear under Bare Poles.—Some vessels, which are well down by the stern, will wear in this situation, by merely pointing the after yards to the wind, or sending down the mizzentopmast and the crossjack-yard, and filling the headyards; but vessels in good trim will not do this. To assist the vessel, veer a good scope of hawser out of the lee-quarter, with a buoy, or something for a stop-water, attached to the end. As the ship sags off to leeward, the buoy will be to windward, and will tend to bring the stern round to the wind. When she is before it, haul the hawser aboard.

Box-hauling.—Put the helm down, light up the headsheets and slack the leebraces, to deaden her way. As she comes to the wind, raise tacks and sheets, and haul up the mainsail and spanker. As soon as she comes head to the wind and loses her headway, square the afteryards, brace the headyards sharp aback, and flatten in the headsheets. The helm, being put down to bring her up, will now pay her off, as she has sternway on. As she goes off, keep the after sails lifting, and square in the headyards. As soon as the sails on the foremast give her headway, shift the helm. When she gets the wind on the other quarter, haul down the jib, haul out the spanker, set the mainsail, and brace the after yards sharp up. As she comes to on the other tack, brace up the headyards, meet her with the helm, and set the jib.

Box-hauling Short Round; sometimes called *wearing short round.*—Haul up the mainsail and spanker, put the helm hard a-weather, square the afteryards, brace the headyards sharp aback, and flatten in the head sheets. As she gathers sternway, shift the helm. After this, proceed as in box-hauling by the former method. The first mode is preferable when you wish to stop headway as soon as possible; as a vessel under good way will range ahead some distance *after the sails* are all thrown flat aback.

Few merchant vessels are strongly enough manned to perform these evolutions; but they are often of service, as they turn a vessel round quicker on her heel, and will stop her from fore-reaching when near in-shore or when close aboard another vessel.

CLUB-HAULING.—This method of going about is resorted to when on a lee shore, and the vessel can neither be tacked nor box-hauled. Cock-bill your lee-anchor, get a hawser on it for a spring, and lead it to the lee-quarter; range your cable, and unshackle it abaft the windlass. *Helm's a-lee!* and *Raise tacks and sheets!* as for going in stays. The moment she loses headway, let go the anchor and *Mainsail haul!* As soon as the anchor brings her head to the wind, let the chain cable go, holding on to the spring; and when the after sails take full, cast off or cut the spring, and *Let go and haul!*

DRIFTING IN A TIDE-WAY.—As a vessel is deeper aft than forward, her stern will always tend to drift faster than her head. If the current is setting out of a river or harbour, and the wind the opposite way, or only partly across the current, you may work out by tacking from shore to shore; or you may let her drift out, broadside to the current; or, keeping her head to the current by sufficient sail, you may let her drift out stern first; or, lastly, you may *club* her down. If the wind is partly across the current, cast to windward. If you work down by tacking, and the wind is at all across the current, be careful of the lee shore, and stay in season, since, if you miss stays, you may not be able to save yourself by wearing or box-hauling, as you might on the weather shore. If the channel is very narrow, or there are many vessels at anchor, the safest way is to bring her head to the current, brace the yards full, and keep only sail enough to give her steerage, that you may sheer from side to side. If there is room enough, you will drift more rapidly by bringing her broadside to the current, keeping the topsails shaking, and counteract the force of the current upon the stern by having the spanker full and the helm a-lee. You can at any time shoot her ahead, back her astern, or bring her head to the current, by filling the headyards, taking in the spanker, and setting the jib; filling the after yards, taking in the jib, and setting the spanker; or by bracing all aback.

BACKING AND FILLING IN A TIDE-WAY.—Counter-brace your yards as in lying-to, and drift down broadside to the current. Fill away and shoot ahead, or throw all aback and force her astern, as occasion may require. When you approach the shore on either side fill away till she gets sufficient headway, and put her in stays or wear her round.

CLUBBING IN A TIDE-WAY.—Drift down with your anchor under your foot, heaving *in or paying* out on your cable as you wish to

increase or deaden her way. Have a spring on your cable, so as to present a broadside to the current. This method is a troublesome and dangerous one and rarely resorted to. An anchor will seldom drag clear through the whole operation.

CHAPTER XII.

GALES OF WIND, LYING-TO, GETTING ABACK, BY THE LEE, &c.

Lying-to—choice of sails—Scudding—Heave-to after scudding—Taken aback—Chappelling—Broaching-to—By the lee.

LYING-TO.—The best single sail to lie-to under, is generally thought to be a close-reefed maintopsail. The fore or the main spencer (sails which are used very much now instead of main and mizzen staysails) may be used to advantage, according as a ship requires sail more before or abaft the centre of gravity. If a ship will bear more than one sail, it is thought best to separate the pressure. Then set the fore and main spencers; or (if she carries staysails instead) the main and mizzen staysail; or, if she is easier under lofty sail, the fore and main topsails close-reefed. A close-reefed main-top-sail, with three lower storm staysails; or, with the two spencers, foretopmast staysail, and reefed spanker, is considered a good arrangement for lying-to. If the foretopmast staysail and balance-reefed spanker can be added to the two close-reefed topsails, she will keep some way, will go less to leeward, and can be easily wore round. Close-reefed topsails are used much more now for lying-to than the courses. As ships are now built, with the centre of gravity farther forward, and the foremast stepped more aft, they will lie-to under head sail better than formerly. Some vessels, which are well down by the stern, will lie-to under a reefed foresail, as this tends to press her down forward; whereas, if she had much after sail, she would have all the lateral resistance of the water aft, and would come up to the wind. In carrying most head or after sail, you must be determined by the trim of the vessel, her tendency to come to or go off, and as to whether the sail you use will act as a lifting or a burying sail.

A topsail has an advantage over a spencer or lower staysail for lying-to, since it steadies the ship better, and counteracts the heavy weather roll, which a vessel will give under low and small fore-and-aft sails.

SCUDDING.—The most approved sail for scudding is the close-*reefed maintopsail*, with a reefed foresail. The course alone might

get becalmed under the lee of a high sea, and the vessel losing her way, would be overtaken by the sea from aft; whereas the topsail will always give her way enough and lift her. The foresail is of use in case she should be brought by the lee. Many officers recommend that the fore topmast staysail, or fore storm staysail, should always be set in scudding, to pay her off if she should broach-to, and with the sheets hauled flat aft.

It has been thought that with the wind quartering and a heavy sea, a vessel is more under command with a close-reefed foretopsail and maintopmast staysail. The foretopmast staysail may also be hoisted. If the ship flies off and gets by the lee, the foretopsail is soon braced about, and, with the maintopmast staysail sheet shifted to the other side, the headway is not lost.

To Heave-to after Scudding.—Secure everything about decks, and watch a smooth time. Suppose her to be scudding under a close-reefed maintopsail and reefed foresail; haul up the foresail, put the helm down, brace up the after yards, and set the mizzen staysail. As she comes-to, set the main staysail, meet her with the helm, brace up the head-yards, and set the fore or foretopmast staysail.

If your vessel labours much, ease the lee braces and the halyards, that everything may work fairly aloft, and let her have plenty of helm, to come-to and fall off freely with the sea. The helmsman will often let the wheel fly off to leeward, taking care to meet her easily and in season. The sails should be so arranged as to require little of the rudder.

Taken Aback.—It will frequently happen, when sailing close-hauled, especially in light winds, from a shift of wind, from its dying away, or from inattention, that the ship will come up into the wind, shaking the square sails forward. In this case, it will often be sufficient to put the helm hard up, flatten in the head sheets, or haul their bights to windward, and haul up the spanker. If this will not recover her, and she continues to come-to, box her off. Raise fore tack and sheet, haul up the spanker and mainsail, brace the head-yards aback, haul the jib sheets to windward, and haul out the lee-bowlines. When the after sails fill, *Let go and haul!* This manœuvre of boxing can only be performed in good weather and light winds, as it usually gives a vessel sternway.

If the wind has got round upon the other bow, and it is too late for box-hauling, square the yards fore and aft, keeping your helm so as to pay her off under sternway; and, as the sails fill, keep the after yards shaking, and haul up the spanker and mainsail, squaring the head-yards, and shifting your helm as she gathers headway.

Chappelling.—*This operation* is performed when, instead of *coming-to, you are taken aback* in light winds. Put the helm up,

if she has headway, haul up the mainsail and spanker, and square the after yards. Shift the helm as she gathers sternway, and when the after sails fill, and she gathers headway, shift your helm again. When she brings the wind aft, brace up the after yards, get the main tack down and sheet aft, and haul out the spanker as soon as it will take. The head braces are not touched, but the yards remain braced as before. The former mode of wearing, by squaring the head-yards when the after sails are full, has great advantages over chappelling, as the vessel will go off faster when the wind is abeam and abaft, and will come-to quicker when the wind gets on the other side.

Broaching-to.—This is when a vessel is scudding, and comes up into the wind and gets aback. For such an accident, the foretopmast staysail is set, which will act as an offsail, so that by keeping the helm up, with the maintopsail (if set) braced into the wind, she will pay-off again without getting sternway. If the close-reefed foretopsail is carried instead of the main, it can be easily filled.

Brought by the Lee.—This is when a vessel is scudding with the wind quartering, and falls off so as to bring the wind on the other side, laying the sails aback. This is more likely to occur than broaching-to, especially in a heavy sea. Suppose the vessel to be scudding under a close-reefed maintopsail and reefed foresail, with the wind on her larboard quarter. She falls off suddenly and brings the wind on the starboard quarter, laying all aback. Put your helm hard a-starboard, raise fore tack and sheet, and fill the foresail, shivering the maintopsail. When she brings the wind aft again, meet her with the helm, and trim the yards for her course.

CHAPTER XIII.

ACCIDENTS.

On beam-ends—Losing a rudder—A squall—A man overboard—Collision—Rules for vessels passing one another.

On Beam-Ends.—A vessel is usually thrown upon her beam-ends by a sudden squall taking her, when under a press of sail, and shifting the ballast. She must be righted, if possible, without cutting away the masts. For, beside sacrificing them, the object can seldom be accomplished in that way, if the ballast and cargo have shifted. Carry a hawser from the lee-quarter, with spars and other good

stop-waters bent to it. As the ship drifts well to leeward, the hawser will bring her stern to the wind; but it may not cast her on the other side. If a spring can be got upon the hawser from the lee bow, and hauled upon, and the stern fast let go, this will bring the wind to act upon the flat part of the deck and pay her stern off, and assist the spring, when the sails may be trimmed to help her in righting. If she can be brought head to the wind, and the sails be taken aback, she may cast on the other tack. When there is anchoring ground, the practice is to let go the lee anchor, which may take the sails aback and cast her. Then the ballast and cargo may be righted.

If there is no anchoring ground, a vessel may still be kept head to the wind, by paying a chain cable out of the lee hawse-hole; or by bending a hawser to a large spar, which may be kept broadside-to by a span, to the centre of which the hawser is bent. The same operation may be applied to a vessel overset, and is preferable to wearing by a hawser. Make fast the hawser forward to the lee bow, carry the other end aft to windward and bend it to the spar, and launch the spar overboard. By this means, or by letting go an anchor, though there be no bottom to be reached, a vessel may often be recovered.

Losing a Rudder.—The first thing to be done on losing a rudder is to bring the ship to the wind by bracing up the afteryards. Meet her with the headyards, as she comes to. Take in sail forward and aft, and keep her hove-to by her sails. A vessel may be made to steer herself for a long time, by carefully trimming the yards and slacking up the jib-sheets or the spanker-sheet a little, as may be required.

Having got the ship by the wind, get up a hawser, middle it, and take a slack clove-hitch at the centre. Get up a cable, reeve its end through this hitch, and pay the cable out over the taffrail. Having payed out about fifty fathoms, jam the hitch and rack it well, so that it cannot slip; pay out on the cable until the hitch takes the water; then lash the cable to the centre of the taffrail; lash a spare spar under it across the stern, with a block well secured at each end, through which reeve the ends of the hawser, one on each quarter, and reeve them again through blocks at the sides, abreast of the wheel. By this, a ship may be steered until a temporary rudder can be constructed.

A rudder may be fitted by taking a spare topmast, or other large spar, and cutting it flat in the form of a stern-post. Bore holes at proper distances in that part which is to be the forepart of the preventer or additional stern-post; then take the thickest plank on board, and make it as near as possible into the form of a rudder;

bore holes at proper distances in the fore part of it and in the after part of the preventer stern-post, to correspond with each other, and reeve rope grommets through those holes in the rudder and after part of the stern-post, for the rudder to play upon. Through the preventer stern-post, reeve guys, and at the fore part of them fix tackles, and then put the machine overboard. When it is in a proper position, or in a line with the ship's stern-post, lash the upper part of the preventer post to the upper part of the ship's stern-post; then hook tackles at or near the main chains, and bowse taut on the guys to confine it to the lower part of the preventer stern-post. Having holes bored through the preventer and proper stern-post, run an iron bolt through both (taking care not to touch the rudder), which will prevent the false stern-post from rising or falling. By the guys on the after part of the rudder and tackles affixed to them, the ship may be steered, taking care to bowse taut the tackles on the preventer stern-post, to keep it close to the proper stern-post.

A Squall.—If you see a squall approaching, take in the light sails, stand by to clew down, and keep her off a little if necessary. If you are taken by one, unprepared, with all sail set and close-hauled, put the helm hard up, let go the spanker-sheet and outhaul, and the main-sheet. Clew up royals and topgallant sails, haul down flying jib, haul up the mainsail, and clew down the mizzen-topsail. When you are before the wind, clew down the topsail-yards, and haul out the reef-tackles. You may run before the squall until it moderates, or furl the light sails, bring by the wind, and reef.

A Man Overboard.*—The moment the cry is heard, put the helm down and bring her up into the wind, whether she is on the wind or free, and deaden her headway. Throw overboard instantly life buoys, or, if there are none at hand, take a grating, the carpenter's bench, or any pieces of plank or loose spars there may be about decks; and let two or three hands clear away a quarter boat. The best plan is, if the vessel was on the wind, to haul the mainsail up and brace aback the after yards and raise the head sheets; then having her main yard aback, she will drift down directly toward the man. Keep your head sails full to steady her, while the after ones stop her headway.

If you are sailing free, with studdingsails set, clew up the lower studdingsail, brace up the headyards, haul forward the foretack, and keep the headyards full, while you luff up to back the after ones. Lower away the boat as soon as it is safe, and, as the vessel will have turned nearly round, direct the boat with reference to her position when the accident happened and her progress since.

* See Totten's *Naval Text Book*, Letter XX.

COLLISION.—If two vessels approach one another, both having a free wind, each keeps to the right. That is, the one with her starboard tacks aboard keeps on her luffs; and the other, if it is necessary to alter her course, keeps off. So, if two vessels approach one another close-hauled on different tacks, and it is doubtful which is to windward, the vessel on the starboard tack keeps on her course, and the other gives way and keeps off. That is, each goes to the right, and the vessel with her starboard tacks aboard has the preference. The only exception to this is, that if the vessel on the larboard tack is so much to windward that in case both persist, the vessel on the starboard tack will strike her to leeward and abaft the beam; then the vessel on the starboard tack must give way, as she can do it more easily than the other.

Another rule is, that if one vessel is going dead before the wind, and the other going free on the starboard tack, the latter must luff and go under the stern of the former.

CHAPTER XIV.

HEAVING-TO BY COUNTER-BRACING—SPEAKING—SOUNDING—HEAVING THE LOG.

COUNTER-BRACING.—This is done whenever, with a breeze, a vessel wishes to remain stationary, for the purpose of speaking another vessel, sounding, lowering a boat, or the like. If you do not wish to stop your way entirely, haul up the mainsail, square the mainyards aback, keeping the fore and crossjack yards full, and the foresail, spanker, and jibset. If you wish to stop her way still more, back the crossjack yards also, haul up the foresail, and put the helm a-lee. She will then fall off and come to, which you may regulate by the jib and spanker-sheets; and she may be ranged a little ahead, or deadened, by filling or backing the crossjack yards.

You may, on the other hand, back the headyards and fill the afteryards. The former method is called heaving-to with the maintopsail to the mast, and the latter, with the foretopsail to the mast.

SPEAKING.—When two vessels speak at sea, the one to windward heaves her maintopsail to the mast, and the one to leeward her fore. This is in order that the weather one may the more readily fill without falling off so as to run afoul of the other, and that the lee one may box her head off and keep clear of the ship to windward. The weather one *either throws* all aback and drops astern, or fills

her after yards and shoots ahead. The lee one shivers her after yards and boxes off.

If the weather ship comes too near the lee one, before the latter has time to wear, the weather ship squares her head yards, drops her mainsail, braces her crossjack yards sharp aback, and puts her helm a-weather. This gives her sternway, and the after sails and helm keep her to the wind.

If three vessels communicate at sea, the weather and middle ones back their main topsails, and the lee one her fore; then, in case of necessity, the weather one fills her after yards and shoots ahead, the middle one throws all aback and drops astern, and the lee one shivers her after sails and falls off.

SOUNDING.—The marks upon the lead-lines have been given previously, at page 4. To sound with the hand-lead, a man stands in the weather main channels with a breast-rope secured to the rigging, and throws the lead forward, while the vessel has headway on. If the depth corresponds with the marks upon the line, as if it is 5, 7, or 10 fathoms, he calls out, "By the *mark five!*" &c. If it is a depth the fathoms of which have no mark upon the line, as 6, 8, or 9, he calls out, "By the *deep six!*" &c. If he judges the depth to be a quarter or a half more than a particular fathom, as, for instance, 5, he calls out, "And a quarter," or, "And a half, five!" &c. If it is 5 and three quarters, he would say, "Quarter less six!" and so on.

TO SOUND BY THE DEEP-SEA-LEAD.—Have the line coiled down in a tub or rack, clear for running, abreast of the main rigging. Carry the end of the line forward on the weather side, outside of everything, to the cathead or the spritsail yard-arm, and bend it to the lead, which must be armed with tallow. One man holds the lead for heaving, and the others range themselves along the side, at intervals, each with a coil of the line in his hand. An officer, generally the chief mate, should stand by to get the depth. All being ready, the word is given, "*Stand by! Heave!*" As soon as the man heaves the lead, he calls out, "*Watch, ho! Watch!*" and each man, as the last fake of the coil goes out of his hand, repeats, "*Watch, ho! Watch!*" The line then runs out until it brings up by the lead's being on bottom, or until there is enough out to shew that there is no bottom to be reached. The officer notes the depth by the line, which is then snatched, and the men haul it aboard, and coil it away fair. If the lead has been on the bottom, the arming of tallow will bring up some of it; by which the character of the soundings may be ascertained.

The soundings, however, cannot be taken until the vessel's way *has been stopped* or deadened. For this purpose, before heaving the

lead, either luff up and keep all shaking, or brace aback the main or mizzen topsail, or both, according to your headway, keeping the head yards full. If you are going free with studdingsails set, you may clew up the lower and boom-end the topmast studdingsails, bring her up to the wind, and keep the sails lifting, without getting them aback.

It has been laid down as a rule, that if the vessel sags much to leeward, as when under short sail in a gale of wind, pass the line from the weather side round the stern, clear of everything, and heave the lead from the lee side; otherwise she would leave the lead too far to windward for measurement, or for recovering it again. But in this mode there is great danger of the line getting caught on the bottom or at the rudder-heel. It must be very deep water if a vessel cannot be managed so as to get soundings to windward.

Heaving the Log.—One man holds the log-reel, upon which the log-line is wound, another holds the glass, and the officer squares the chip; and, having coiled up a little of the stray line, he throws the chip overboard astern, or from the lee quarter. As he throws the chip, he calls out, "Watch!" To which the man with the glass answers, "Watch." As soon as the mark for the stray line goes off the reel, he calls out "Turn!" and the man turns the glass, answering, "Turn," or "Done." The instant the sand has run out, he calls, "Out!" or "Stop!" and the officer stops the line and notes the marks. It is then wound up again on the reel.

CHAPTER XV.

COMING TO ANCHOR.

Getting ready for port—Coming to anchor—close-hauled—free—Mooring—Flying moor—Clearing hawse—To anchor with a slip-rope—Slipping a cable—Coming to at a slipped cable.

Getting Ready for Port.—Get your anchors off the bows, and let them hang by the cat-stoppers and shank painters. Bend your cables and overhaul a few ranges forward of the windlass, according to the depth of the anchorage and the strength of the tide or wind, and range the remainder that you expect to use along the decks, abaft the windlass. Have the boats ready for lowering, and a spare hawser, with some stout rope for kedging or warping, at hand, coiled on the hatches.

Coming to Anchor.—If you have the wind free and all sail set, take in *your studdingsails*, make them up and stow them away, rig

in the booms and coil away the gear, and have all ready in good season. You may then, as you draw in toward the anchorage, take in your royals and flying jib, furling the royals if you have time. The topgallant sails are next taken in, and the foresail hauled up. The topgallant sails may be furled or not, according to the strength of the wind and the number of hands. If you are before the wind, your mainsail will be hauled up, or, if the sheet is aft, haul up the lee clew-garnet. Get your ship under her topsails, jib, and spanker. When near the ground, clew up the fore and main topsails, put the helm down, haul down the jib, and flatten in the spanker. If you have too much headway, back the mizzen topsail. Cock-bill your anchor and stream the buoy. When she has lost her headway, let go the anchor. Let hands stand by to give her chain, as she needs it.

If you come into anchoring ground close-hauled, haul in the weather fore and main braces, and clew up. If the wind is light, you may square the fore and main yards before clewing up. This will deaden her way. If the wind is fresh, it would make it difficult to clew up the sails. Haul down the jib, and come to by the spanker, or mizzentopsail and spanker. If the wind is light, she may need the mizzentopsail; if not, it may be taken in, and she may be brought to by the spanker. If she has too much headway, or there is a tide setting her in, throw all aback.

Mooring.—A vessel is said to be moored when she rides with more than one anchor, in different directions. The common method of mooring is, when you have come to with one anchor, to pay out chain and let her drop astern until you have out double the scope you intend to ride by. Then let go your other anchor. Slack up the cable of the latter anchor, and heave in on that of the first, until you have the same scope to each anchor. You may also moor by lowering the anchor and lashing it to the stern of the long boat, and coiling away the full scope in the bottom of the boat. You may then pull off and pick out your own berth, and let go.

If you wish to drop your second anchor in any other place than directly to leeward of the first, you may, without using your long boat, warp the vessel over the berth intended for your second anchor.

You should always moor so that you may ride with an open hawse in the direction from which you are liable to the strongest winds. If you have chain cables, you may moor with both cables bent to a swivel just clear of the hawse-hole, one chain coming inboard. In moderate weather, and where you are not in a strong tide-way, it will generally be sufficient to let go one anchor, since, if you have out a good scope of chain, you will ride by the bight of it, and it will require a very heavy blow to bring a strain upon the anchor.

In mooring, you should always have a shackle near the hawse-hole, for clearing hawse. If it is just abaft the windlass, it will be convenient in case you wish to slip your cable.

A Flying Moor—sometimes called a Running Moor.—Have both anchors ready for letting go, with double the scope of chain you intend to ride by ranged for the weather anchor, and the riding scope of the lee chain. There are two ways of making a flying moor. One is to clew up everything and let go the first anchor while she has sufficient headway to run out the whole double range. When it is all out, or just before, luff sharp up, brace aback to stop her way, and let go the other anchor. Then heave in on the first and light out on the second, till there is the same scope to each. This mode is almost impracticable in a merchant vessel, where there is but one deck, and where the chain may have to be paid out over a windlass, since the headway would in most cases be soon stopped.

The other mode is, to lay all flat aback, and the moment the headway ceases, let go your first anchor, paying out chain as she drops astern, until double your riding scope is out. Then let go your second anchor, and heave in on the first.

Clearing Hawse.—When a vessel is moored, she may swing so as to get a *foul hawse;* that is, so as to bring one cable across the other. If one cable lies over the other, it is called *a cross.* When they make another cross, it is called an *elbow.* Three crosses make a *round turn.* The turns may be kept out of a cable by tending the vessel when she swings, and casting her stern one side or the other, by the helm, jib, and spanker. To clear hawse, trice the slack cable up by a line or a whip purchase and hook, below the turns. Lash the two cables together just below the lowest turn. Pass a line round the cable from outside, following each turn, and in through the hawse-hole of the slack cable, and bend it to the shackle. Unshackle and bend a line to the end. Rouse the cable out through the hawse-hole, slacking up on the end line, and tricing up if necessary. Take out the turns by the first line passed in, and haul in again on the end line. Shackle the chain again, heave taut, and cast off the lashings.

To Anchor with a Slip-rope.—This is necessary when you are lying in an open road-stead, where you must stand out to sea upon a gale coming up, without taking time to get your anchor. You must ride at one anchor. Having come-to, take a hawser round from the quarter on the same side with your anchor, outside of everything, and bend its end to the cable just below the hawse-hole. Have a buoy triced up forward, clear of everything, and carry the buoy-rope in through the hawse-hole, and round the windlass, with three turns *(the first turn being outside* the others), and bend it to

the shackle which is to be cast off when the cable is slipped. Have another buoy bent to the end of the hawser which is to be used for the slip-rope.

To Slip a Cable.—When ready to slip, everything having been prepared as above, unshackle the chain abaft the windlass, and hoist the topsails, reefed, if necessary. Stream the buoy for the end of the chain, and that at the end of the slip-rope aft. Take good turns with the slip-rope round the timber-heads, at the quarter. Hoist the foretopmast-staysail and back the foretopsail, hauling in the braces on the same side with the cable, so that she may cast to the opposite side. Fill the after yards, and let go the end of the cable. Hold on to the slip-rope aft, until her head is fairly off; then let go, brace full the head yards, and set the spanker.

Coming-to at a Slipped Cable.—Keep a lookout for your buoys. Having found them, heave-to to windward of them, send a boat with a strong warp and bend it to the slip-rope buoy, take the other end to the capstan and walk the ship up to the buoy. Take the slip-rope through the chock, forward, and heave on it until you get the chain, where the slip-rope was bent to it, under foot. Make well fast the slip-rope, then fish the buoy at the end of the chain, haul up on that buoy rope, and get the end of the chain. Rouse it in through the hawse-hole and shackle it. Heave taut, until the bend of the slip-rope is above the water, then take the other end round aft, and make it fast at the quarter-port again. Pass in the buoy-rope for the end of the chain, and you are all ready for slipping again.

CHAPTER XVI.

GETTING UNDER WAY.

To unmoor—Getting under way from a single anchor—To cat and fish—To get under way with a wind blowing directly out, and riding head to it—with a rock or shoal close astern—when riding head to wind and tide, and to stand out close-hauled—wind-rode, with a weather tide—tide-rode, casting to windward—tide-rode, wearing round.

Unmoor.—Pay out on your riding cable, heaving in the slack of the other. When the other is short, trip it, cat and fish, and heave in on your riding cable. Instead of this method, the anchor which you are not riding by may be weighed, if it is a small one, by the long boat. Send the long boat out over the anchor, take aboard the buoy-rope, carrying it over the roller in the boat's stern, or through *the end of a davit*, clap the watch-tackle to it, and weigh it out of

the ground. This done, and the buoy-rope and tackle secured to the boat, heave in on the chain on board, which will bring the anchor alongside, the boat approaching at the same time. When under the bow, cast off the fasts to the boat, heave up the anchor, cat and fish.

GETTING UNDER WAY FROM A SINGLE ANCHOR.—It is the duty of the chief mate to see all ready forward for getting under way; the rigging fair for making sail, the cat and fish tackles rove, and the fish-davit at hand. Heave short on your chain and pawl the windlass. Loose all the sails, if the wind is light, and sheet home and hoist up topsails, topgallantsails, and royals. If there is a stiff breeze, set topsails alone, whole or reefed. You should always, if it will answer, cast on the opposite side from your anchor; that is, if you are riding by your starboard anchor, cast to port. Brace your head yards aback and your after yards full, for the tack you mean to cast upon. The sails being set, man the windlass again, give her a sheer with the helm, and trip your anchor. The mate reports when it is away. As soon as it is away, hoist the jib. The foretopsail aback will pay her head off. Put the helm for stern-board. When her head is off enough, fill away the head yards and haul out the spanker, shifting the helm for headway. Trim the yards for your course, and make sail on her. If the wind is light and the sea smooth, you may cat and fish your anchor after you get under way; but it is best in a rough sea to keep the vessel hove-to until the anchor is catted and fished.

TO CAT AND FISH AN ANCHOR.—When the anchor is lifted and brought under foot, pawl the windlass, keeping a good hold on the chain. Overhaul down the cat-block and hook it to the ring of the anchor. Stretch along the cat-fall and let all hands tally on. Set taut on the cat-tackle and pay out a little chain. Hoist away the anchor to the cat-head, and belay the fall. Pass the cat-stopper through the ring of the anchor, through the chock, belay it to the cat-tail, and seize it to its own part. Overhaul down the fish-tackle, hook the lower block to the pennant, and hook the fish-hook to the inner fluke of the anchor. Rig out your fish-davit across the forecastle, and put the bight of the pennant into the sheave-hole. Get a guy over it, near the outer end, to keep it down, and another at the inner end, to keep it out. Get the shoe over the side, to fend off the bill of the anchor. Hoist the fluke well up, pass the shank-painter under the inner arm and shank, bring it inboard, and belay and stop it to the timber-heads. Rig in the davit, unreeve the cat-fall and fish-tackle.

A vessel may sometimes be got under way to advantage with the jib and spanker; *particularly if* the wind is blowing directly out of

the harbour. Heave the anchor up at once. When it has broken ground hoist the jib, and, as she pays off, haul out the spanker. Keep her under this sail until the anchor is catted and fished, then make sail and stand out.

To get Under Way, with a Wind blowing directly out, and Riding Head to it.—Suppose the ship to have her starboard anchor down. Heave short and clear away the jib, and put the helm to port. Heave again until the anchor is up to the bows. Cat and fish. When the anchor is a-weigh, hoist the jib. Let her pay off under the jib. When she gathers headway, shift the helm, and let fall the sails. When she gets before it, sheet home and hoist the topsails, set the foresail, and haul down the jib. Make sail aloft.

To get Under Way, Riding Head to the Wind, with a Rock or Shoal close Astern.—Suppose you wish to cast the ship on the starboard tack. Heave in a safe scope on the chain, and run out a kedge with a hawser from the starboard bow. Cast off the yard-arm gaskets and mast-head the topsails, keeping the bunts fast. Heave taut on the hawser, and brace the yards up for the starboard tack fore and aft, hauling the jib-sheet to windward. Heave up the anchor, taking in the slack of the hawser, cat it, pass the stopper, and have all ready for letting go. Haul ahead on the hawser, and as soon as the kedge is short a-peak or comes home, sheet home the topsails, run up the jib, and put the helm a-starboard. As soon as the jib fills, run the kedge up and take it in. When the topsails take and she gathers headway, draw the jib, set the spanker, board fore and main tacks, haul aft sheets, and right the helm. If she falls off too rapidly when the topsails take, give her the spanker and mainsail, easing off the jib sheet. When she comes to, haul aft the jib sheet and board the foretack. If, when the kedge is a-weigh, she falls off on the wrong side, let go the anchor.

To get Under Way, Riding Head to Wind and Tide, and to Stand Out Close-hauled.—Suppose you wish to cast to port. Heave short, keeping the helm a-starboard. Set the topsails. Brace up the after yards for the starboard-tack, and back the head yards. Man the windlass and heave up the anchor. When the anchor is a-weigh, hoist the jib. When she has payed off sufficiently, fill away the head yards, shift the helm for headway, set the spanker, and make sail. Cat and fish, either before or after filling away.

If you have no room to cast on either side, but have a vessel on each quarter, heave short, set the topsails, jib, and spanker, brace all the yards half up for the starboard tack, weigh the anchor, and put the helm to port. The tide acting on the rudder will sheer her head to starboard. When the sails take aback and give her sternway, the rudder and after sails will act against the head sails, and she

will drift fairly down between the two vessels. Keep her off or to, by the spanker and jib. When you are clear, cast to port; or, haul up the spanker, shiver the after yards, and let her go off before it.

To GET UNDER WAY WIND-RODE, WITH A WEATHER TIDE; that is, a tide setting to windward.—Suppose you wish to cast to port. Heave short, loose the sails, and set the topsails. Square the after yards, and haul in the starboard headbraces. Heave again, and, when you are a-weigh, put the helm to port and hoist the jib. When she has paid off enough, fill away the head yards and shift the helm for headway.

To GET UNDER WAY, TIDE-RODE, CASTING TO WINDWARD.—Suppose the wind to be a little on the starboard bow, and you wish to cast to starboard, standing out on the larboard-tack. Having hove short and set the topsails, brace up the after yards for the larboard-tack, and brace the head yards aback. Weigh the anchor, keeping your helm to port, and hauling the spanker-boom well over to starboard. When she comes head to the wind, hoist the jib, with the sheet to port. Shift the helm for sternway. As she falls off, draw the jib, fill the head yards, and shift the helm for headway.

To GET UNDER WAY, TIDE-RODE, WEARING ROUND.—Suppose you have the wind on your starboard quarter, and are obliged to wear her round and stand out on the larboard-tack. Set the topsails, square the head yards, and shiver the after yards. When the anchor is a-weigh, put the helm hard a-starboard, and give her the foresail if necessary. Having headway, she will go round on her keel, and you may proceed as in wearing.

If a vessel is in a confined situation, without room to cast by her sails or by the tide, she may be cast by a spring upon her cable, leading in at that which will be the weather quarter. The spring may be bent to the ring of the anchor before it is let go, or it may be seized to the cable just outside the hawse-hole.

It will be remembered that when a vessel is riding head to the tide, the helm is to be put as though she had headway; and when the tide sets from astern, as though she had sternway. But you should be reminded that when you have the wind and tide both ahead, if the vessel, after you weigh your anchor, goes astern faster then the current, the helm must be used as for stern-board.

DICTIONARY OF SEA TERMS.

ABACK. The situation of the sails when the wind presses their surfaces against the mast, and tends to force the vessel astern.
ABAFT. Toward the stern of a vessel.
ABOARD. Within a vessel.
ABOUT. On the other tack.
ABREAST. Alongside of. Side by side.
ACCOMMODATION. (See LADDER.)
A-COCK-BILL. The situation of the yards when they are topped up at an angle with the deck. The situation of an anchor when it hangs to the cat-head by the ring only.
ADRIFT. Broken from moorings or fasts. Without fasts.
AFLOAT. Resting on the surface of the water.
AFORE. Forward. The opposite of abaft.
AFT—AFTER. Near the stern.
AGROUND. Touching the bottom.
AHEAD. In the direction of the vessel's head. *Wind ahead* is from the direction toward which the vessel's head points.
A-HULL. The situation of a vessel when she lies with all her sails furled and her helm lashed a-lee.
A-LEE. The situation of the helm when it is put in the opposite direction from that in which the wind blows.
ALL-ABACK. When all the sails are aback.
ALL HANDS. The whole crew.
ALL IN THE WIND. When all the sails are shaking.
ALOFT. Above the deck.
ALOOF. At a distance.
AMAIN. Suddenly. At once.
AMIDSHIPS. In the centre of the vessel; either with reference to her length or to her breadth.
ANCHOR. The machine by which, when dropped to the bottom, the vessel is held fast.
ANCHOR-WATCH. (See WATCH.)
AN-END. When a mast is perpendicular to the deck.
A-PEEK. When the cable is hove taut so as to bring the vessel nearly over her anchor. The *yards* are *a-peek* when they are topped up by contrary lifts.
APRON. A piece of timber fixed behind the lower part of the stern, just above the fore end of the keel. A covering to the vent or lock of a cannon.
ARM. YARD-ARM. The extremity of a yard. Also, the lower part of an anchor, crossing the shank and terminating in the flukes.
ARMING. A piece of tallow put in the cavity and over the bottom of a lead-line.
A-STERN. In the direction of the stern. The opposite of ahead.
A-TAUNT. (See TAUNT.)

ATHWART. Across.

Athwart-ships. Across the line of the vessel's keel.

Athwart-hawse. Across the direction of a vessel's head. Across her cable.

ATHWART-SHIPS. Across the length of a vessel. In opposition to fore-and-aft.

A-TRIP. The situation of the anchor when it is raised clear of the ground. The same as a-weigh.

AVAST, or 'VAST. An order to stop; as, "Avast heaving!"

A-WEATHER. The situation of the helm when it is put in the direction from which the wind blows.

A-WEIGH. The same as a-trip.

AWNING. A covering of canvas over a vessel's deck, or over a boat, to keep off sun or rain.

BACK. *To back an anchor,* is to carry out a smaller one ahead of the one by which the vessel rides, to take off some of the strain.

To back a sail, is to throw it aback.

To back and fill, is alternately to back and fill the sails.

BACKSTAYS. Stays running from a masthead to the vessel's side, slanting a little aft. (See STAYS.)

BAGPIPE. *To bagpipe the mizzen,* is to lay it aback by bringing the sheet to the weather mizzen rigging.

BALANCE-REEF. A reef in a spanker or fore-and-aft mainsail, which runs from the outer head-earing, diagonally, to the tack. It is the closest reef, and makes the sail triangular, or nearly so.

BALE. *To bale a boat,* is to throw water out of her.

BALLAST. Heavy material, as iron, lead, or stone, placed in the bottom of the hold, to keep a vessel from upsetting.

To freshen ballast, is to shift it. Coarse gravel is called *shingle ballast.*

BANK. A boat is *double banked* when two oars, one opposite the other, are pulled by men seated on the same thwart.

BAR. A bank or shoal at the entrance of a harbour.

Capstan-bars are heavy pieces of wood by which the capstan is hove round.

BARE-POLES. The condition of a ship when she has no sail set.

BARGE. A large double-banked boat, used by the commander of a vessel in the navy.

BARK, or BARQUE. (See PLATE 4.) A three-masted vessel, having her fore and main masts rigged like a ship's, and her mizzenmast like the mainmast of a schooner, with no sail upon it but a spanker, and gaff topsail.

BARNACLE. A shell-fish often found on a vessel's bottom.

BATTENS. Thin strips of wood put around the hatches to keep the tarpaulin down. Also, put upon rigging to keep it from chafing. A large batten widened at the end, and put upon rigging, is called a *scotchman.*

BEACON. A post or buoy placed over a shoal or bank to warn vessels off. Also as a signal mark on land.

BEAMS. Strong pieces of timber stretching across the vessel, to support the decks.

On the weather or lee beam, is in a direction to windward or leeward, at right angles with the keel.

On beam ends. The situation of a vessel when turned over so that her beams are inclined toward the vertical.

BEAR. An object *bears* so and so, when it is in such a direction from the person looking.

To bear down upon a vessel, is to approach her from the windward.

To bear up, is to put the helm up and keep a vessel off from her course, and move her to leeward.

To bear away, is the same as to *bear up;* being applied to the vessel instead of to the tiller.

To bear-a-hand. To make haste.

Bearing. The direction of an object from the person looking. The *bearings* of a vessel are the widest part of her below the plank-shear. That part of her hull which is on the water-line when she is at anchor and in her proper trim.

Beating. Going toward the direction of the wind, by alternate tacks.

Becalm. To intercept the wind. A vessel or highland to windward is said to *becalm* another. So one sail *becalms* another.

Becket. A piece of rope placed so as to confine a spar or another rope. A handle made of rope, in the form of a circle (as the handle of a chest), is called a *becket*.

Bees. Pieces of plank bolted to the outer end of the bowsprit, to reeve the foretopmast stays through.

Belay. To make a rope fast by turns round a pin or coll, without hitching or seizing it.

Bend. To make fast.

To bend a sail, is to make it fast to the yard.

To bend a cable, is to make it fast to the anchor.

A bend, is a knot by which one rope is made fast to another.

Bends. (See Plate 3.) The strongest part of a vessel's side, to which the beams, knees, and foot-hooks are bolted. The part between the water's edge and the bulwarks.

Beneaped. (See Neaped.)

Bentick Shrouds. Formerly used, and extending from the futtock-staves to the opposite channels.

Berth. The place where a vessel lies. The place in which a man sleeps.

Between-decks. The space between any two decks of a ship.

Bibbs. Pieces of timber bolted to the hounds of a mast, to support the trestle-trees.

Bight. The double part of a rope when it is folded; in contradistinction from the ends. Any part of a rope may be called the bight, except the ends. Also, a bend in the shore, making a small bay or inlet.

Bilge. That part of the floor of a ship upon which she would rest if aground; being the part near the keel which is more in a horizontal than a perpendicular line.

Bilge-ways. Pieces of timber bolted together and placed under the bilge, in launching.

Bilged. When the bilge is broken in.

Bilge Water. Water which settles in the bilge.

Bilge. The largest circumference of a cask.

Bill. The point at the extremity of the fluke of an anchor.

Billet-head. (See Head.)

Binnacle. A box near the helm, containing the compass.

Bitts. Perpendicular pieces of timber going through the deck, placed to secure anything to. The cables are fastened to them, if there is no windlass. There are also *bitts* to secure the windlass, and on each side of the heel of the bowsprit.

Bitter, or Bitter-end. That part of the cable which is abaft the bitts.

Blackwall Hitch. (See Plate 5 and page 31.)

Blade. The flat part of an oar, which goes into the water.

Block. A piece of wood with sheaves, or wheels, in it, through which the running rigging passes, to add to the purchase. (See page 34.)

Bluff. A *bluff-bowed* or *bluff-headed* vessel is one which is full and square forward.

Board. The stretch a vessel makes upon one tack, when she is beating.

Stern-board. When a vessel goes stern foremost.

By the board. Said of masts, when they fall over the side.

Boat-hook. An iron hook with a long staff, held in the hand, by which a boat is kept fast to a wharf, or vessel.

Boatswain. (Pronounced *bo-s'n.*) A warrant officer in the navy, who has charge of the rigging, and calls the crew to duty.

Bobstays. Used to confine the bowsprit down to the stem or cutwater.

Bolsters. Pieces of soft wood, covered with canvas, placed on the trestle-trees, for the eyes of the rigging to rest upon.

Bolts. Long cylindrical bars of iron or copper, used to secure or unite the different parts of a vessel.

Bolt-rope. The rope which goes round a sail, and to which the canvas is sewed.

Bonnet. An additional piece of canvas attached to the foot of a jib, or a schooner's foresail, by lacings. Taken off in bad weather.

Boom. A spar used to extend the foot of a fore-and-aft sail or studdingsail.

Boom-irons. Iron rings on the yards, through which the studdingsail booms traverse.

Boot-topping. Scraping off the grass, or other matter, which may be on a vessel's bottom, and daubing it over with tallow, or some mixture.

Bound. *Wind-bound.* When a vessel is kept in port by a head wind.

Bow. The rounded part of a vessel, forward.

Bower. A working anchor, the cable of which is bent and reeved through the hawse-hole.

Best bower is the larger of the two bowers. (See page 4.)

Bow-grace. A frame of old rope or junk, placed round the bows and sides of a vessel, to prevent the ice from injuring her.

Bowline. (Pronounced *bo-lin.*) A rope leading forward from the leach of a square sail, to keep the leach well out, when sailing close-hauled. A vessel is said to be *on a bowline,* or *on a taut bowline,* when she is close-hauled.

Bowline-bridle. The spawn on the leach of the sail to which the bowline is toggled.

Bowline-knot. (See Plate 5 and page 31.)

Bowse. To pull upon a tackle.

Bowsprit. (Pronounced *bo-sprit.*) A large and strong spar, standing from the bows of a vessel. (See Plate 1.)

Box-hauling. Wearing a vessel by backing the head sails. (See page 52.)

Box. *To box the compass* is to repeat the thirty-two points of the compass in order.

Brace. A rope by which a yard is turned about.

To brace a yard, is to turn it about horizontally.

To brace up, is to lay the yard more fore-and-aft.

To brace in, is to lay it nearer square.

To brace aback. (See Aback.)

To brace to, is to brace the head yards a little aback, in tacking or wearing.

Brails. Ropes by which the foot or lower corners of fore-and-aft sails are hauled up.

Brake. The handle of a ship's pump.

Break. *To break bulk,* is to begin to unload.

To break ground, is to lift the anchor from the bottom.

To break shear, is when a vessel, at anchor, in tending, is forced the wrong way by the wind or current, so that she does not lie so well for keeping herself clear of her anchor.

Breaker. A small cask containing water.

Breaming. Cleaning a ship's bottom by burning.

Breast-fast. A rope used to confine a vessel sideways to a wharf, or to some other vessel.

Breast-hooks. Knees placed in the forward part of a vessel, across the stem, to unite the bows on each side. (See Plate 3.)

Breast-rope. A rope passed round a man in the chains, while sounding.

Breech. The outside angle of a knee-timber. The after end of a gun.

Breeching. A strong rope used to secure the breech of a gun to the ship's side.

Bridle. Spans of rope attached to the leaches of square sails, to which the bowlines are made fast.

Bridle-port. The foremost port, used for stowing the anchors.

BRIG. A square-rigged vessel, with two masts. An *hermaphrodite brig* has a brig's foremast and a schooner's mainmast. (See PLATE 4.)

BROACH-TO. To fall off so much, when going free, as to bring the wind round on the other quarter and take the sails aback.

BROADSIDE. The whole side of a vessel.

BROKEN-BACKED. The state of a vessel when she is so loosened as to droop at each end.

BUCKLERS. Blocks of wood made to fit in the hawse-holes, or holes used in the half-ports, when at sea. Those in the hawse-holes are sometimes called *hawse-blocks.*

BULGE. (See BILGE.)

BULK. The whole cargo when stowed.

Stowed in bulk, is when goods are stowed loose, instead of being stowed in casks or bags. (See BREAK BULK.)

BULK-HEAD. Temporary partitions of boards to separate different parts of a vessel.

BULL. A sailor's term for a small keg, holding a gallon or two.

BULL'S-EYE. (See page 34.) A small piece of stout wood with a hole in the centre for a stay or rope to reeve through, without any sheave, and with a groove round it for the strap, which is usually of iron. Also, a piece of thick glass inserted in the deck to let light below.

BULWARKS. The wood work round a vessel, above her deck, consisting of boards fastened to stanchions and timber-heads.

BUM-BOATS. Boats which lie alongside a vessel in port with provisions and fruit to sell.

BUMPKIN. Pieces of timber projecting from the vessel, to board the fore tack to; and from each quarter, for the main brace-blocks.

BUNT. The middle of a sail.

BUNTLINE. (Pronounced *buntin.*) Thin woollen stuff of which a ship's colours are made.

BUNTLINES. Ropes used for hauling up the body of a sail.

BUOY. A floating cask, or piece of wood, attached by a rope to an anchor, to shew its position. Also, floated over a shoal, or other dangerous place, as a beacon.

To stream a buoy, is to drop it into the water before letting go the anchor.

A buoy is said to *watch,* when it floats upon the surface of the water.

BURTON. A tackle, rove in a particular manner.

A single Spanish burton, has three single blocks, or two single blocks and a hook in the bight of one of the running parts.

A double Spanish burton has three double blocks. (See page 35.)

BUTT. The end of a plank where it unites with the end of another.

Scuttle-butt. A cask with a hole cut in its bilge, and kept on deck to hold water for daily use.

BUTTOCK. That part of the convexity of a vessel abaft, under the stern, contained between the counter above and the after part of the bilge below, and between the quarter on the side and the stern-post. (See PLATE 3.)

BY. *By the head.* Said of a vessel when her head is lower in the water than her stern. If her stern is lower, she is *by the stern.*

By the lee. (See LEE. See RUN.)

CABIN. The after part of a vessel, in which the officers live.

CABLE. A large, strong rope, made fast to the anchor, by which the vessel is secured. It is usually 120 fathoms in length.

CABLE-TIER. (See TIER.)

CABOOSE. A house on deck, where the cooking is done. Commonly called the *Galley.*

CALK. (See CAULK.)

CAMBERED. When the floor of a vessel is higher at the middle than towards the stem and stern.

CAMEL. A machine used for lifting vessels over a shoal or bar.
CAMFERING. Taking off an angle or edge of a timber.
CAN-HOOKS. Slings with flat hooks at each end, used for hoisting barrels or light casks, the hooks being placed round the chimes, and the purchase hooked to the centre of the slings. Small ones are usually wholly of iron.
CANT-PIECES. Pieces of timber fastened to the angles of fishes and side-trees, to supply any part that may prove rotten.
CANT-TIMBERS. Timbers at the two ends of a vessel, raised obliquely from the keel.
Lower Half Cants. Those parts of frames situated forward and abaft the square frames, or the floor timbers which cross the keel.
CANVAS. The cloth of which sails are made. No. 1 is the coarsest and strongest.
CAP. A thick, strong block of wood with two holes through it, one square and the other round, used to confine together the head of one mast and the lower part of the mast next above it. (See PLATE 1.)
CAPSIZE. To overturn.
CAPSTAN. A machine placed perpendicularly in the deck, and used for a strong purchase in heaving or hoisting. Men-of-war weigh their anchors by capstans. Merchant vessels use a windlass. (See BAR.)
CAREEN. To heave a vessel down upon her side by purchases upon the masts. To lie over, when sailing on the wind.
CARLINGS. Short and small pieces of timber running between the beams.
CARRICK-BEND. A kind of knot. (See PLATE 5 and page 31.)
Carrick-bitts are the windlass bitts.
CARRY-AWAY. To break a spar, or part a rope.
CAST. To pay a vessel's head off, in getting under way, on the tack she is to sail upon.
CAT. The tackle used to hoist the anchor up to the cat-head.
Cat-block, the block of this tackle.
CAT-HARPIN. An iron leg used to confine the upper part of the rigging to the mast.
CAT-HEAD. Large timbers projecting from the vessel's side, to which the anchor is raised and secured.
CAT'S-PAW. A kind of hitch made in a rope. (See PLATE 5 and page 31.) A light current of air seen on the surface of the water during a calm.
CAULK. To fill the seams of a vessel with oakum.
CAVIL. (See KEVEL.)
CEILING. The inside planking of a vessel.
CHAFE. To rub the surface of a rope or spar.
Chafing-gear is the stuff put upon the rigging and spars to prevent their chafing.
CHAINS. (See PLATE 1.) Strong links or plates of iron, the lower ends of which are bolted through the ship's side to the timbers. Their upper ends are secured to the bottom of the dead-eyes in the channels. Also, used familiarly for the CHANNELS, which see. The chain cable of a vessel is called familiarly her *chain*.
Rudder-chains lead from the outer and upper end of the rudder to the quarters. They are hung slack.
CHAIN-PLATES. Plates of iron bolted to the side of a ship, to which the chains and dead-eyes of the lower rigging are connected.
CHANNELS. Broad pieces of plank bolted edgewise to the outside of a vessel. Used for spreading the lower rigging. (See CHAINS.)
CHAPELLING. Wearing a ship round, when taken aback, without bracing the head yards. (See page 55.)
CHECK. A term sometimes used for slacking off a little on a brace, and then belaying it.
CHEEKS. The projections on each side of a mast, upon which the trestle-trees rest. The sides of the shell of a block.
CHEERLY! Quickly, with a will.

CHESS-TREES. Pieces of oak, fitted to the sides of a vessel abaft the fore chains, with a sheave in them, to board the main tack to. Now out of use.

CHIMES. The ends of the staves of a cask, where they come out beyond the head of the cask.

CHINSE. To thrust oakum into seams with a small iron.

CHOCK. A wedge used to secure anything with, or for anything to rest upon. The long boat rests upon two large *chocks* when it is stowed.

Chock-a-block. When the lower block of a tackle is run close up to the upper one, so that you can hoist no higher. This is also called hoisting up *two-blocks.*

CISTERN. An apartment in the hold of a vessel, having a pipe leading out through the side, with a cock, by which water may be let into her.

CLAMPS. Thick planks on the inside of vessels, to support the ends of beams. Also, crooked plates of iron forelocked upon the trunions of cannon. Any plate of iron made to turn, open, and shut so as to confine a spar or boom, as, a studdingsail boom, or a boat's mast.

CLASP-HOOK. (See CLOVE-HOOK.)

CLEAT. A piece of wood used in different parts of a vessel to belay ropes to.

CLEW. The lower corner of square sails, and the after corner of a fore-and-aft sail.

To clew up, is to haul up the clew of a sail.

CLEW-GARNET. A rope that hauls up the clew of a foresail or mainsail in a square-rigged vessel.

CLEWLINE. A rope that hauls up the clew of a square sail. The *clew-garnet* is the clewline of a course.

CLINCH. A half-hitch, stopped to its own part.

CLOSE-HAULED. Applied to a vessel which is sailing with her yards braced up so as to get as much as possible to windward. The same as *on a taut bowline, full and by, on the wind,* &c.

CLOVE-HITCH. Two half-hitches round a spar or other rope. (See PLATE 5 and page 30.)

CLOVE-HOOK. An iron clasp, in two parts, moving upon the same pivot, and overlapping one another. Used for bending chain sheets to the clews of sails.

CLUB-HAUL. To bring a vessel's head round on the other tack, by letting go the lee anchor and cutting or slipping the cable. (See page 53.)

CLUBBING. Drifting down a current with an anchor out. (See page 53.)

COAKING. Uniting pieces of spar by means of tabular projections, formed by cutting away the solid of one piece into a hollow, so as to make a projection in the other, in such a manner that they may correctly fit, the butts preventing the pieces from drawing asunder.

Coaks are fitted into the beams and knees of vessels to prevent their drawing.

COAL TAR. Tar made from bituminous coal.

COAMINGS. Raised work round the hatches, to prevent water going down into the hold.

COAT. *Mast-Coat* is a piece of canvas, tarred or painted, placed round a mast or bowsprit where it enters the deck.

COCK-BILL. To cock-bill a yard or anchor. (See A-COCK-BILL.)

COCK-PIT. An apartment in a vessel of war, used by the surgeon during an action.

CODLINE. An eighteen thread line.

COXWAIN. (Pronounced *cox'n.*) The person who steers a boat and has charge of her.

COIL. To lay a rope up in a ring, with one turn or fake over another.

A coil is a quantity of rope laid up in that manner.

COLLAR. An eye in the end or bight of a shroud or stay, to go over the masthead.

COME. *Come home,* said of an anchor when it is broken from the ground and drags.

To come up a rope or tackle is to slack it off.

COMPANION. A wooden covering over the staircase to a cabin.
Companion-way, the staircase to the cabin.
Companion-ladder, the ladder leading from the poop to the main deck.
COMPASS. The instrument which tells the course of a vessel.
Compass-timbers are such as are curved or arched.
CONCLUDING-LINE. A small line leading through the centre of the steps of a rope or Jacob's ladder.
CONNING, or CUNNING. Directing the helmsman in steering a vessel.
COUNTER. (See PLATE 8.) That part of a vessel between the bottom of the stern and the wing-transom and buttock.
Counter-timbers are short timbers put in to strengthen the counter.
To counter-brace yards, is to brace the head-yards one way and the after-yards another.
COURSES. The common term for the sails that hang from a ship's lower yards. The foresail is called the *forecourse* and the mainsail the *maincourse*.
CRANES. Pieces of iron or timber at the vessel's sides, used to stow boats or spars upon. A machine used at a wharf for hoisting.
CRANK. The condition of a vessel when she is inclined to lean over a great deal and cannot bear much sail. This may be owing to her construction or to her stowage.
CREEPER. An iron instrument, like a grapnell, with four claws, used for dragging the bottom of a harbour or river, to find anything lost.
CRINGLE. A short piece of rope with each end spliced into the bolt-rope of a sail, confining an iron ring or thimble.
CROSS-BARS. Round bars of iron, bent at each end, used as levers to turn the shank of an anchor.
CROSS-CHOCKS. Pieces of timber fayed across the dead-wood amidships, to make good the deficiency of the heels of the lower futtocks.
CROSS-JACK. (Pronounced *cro'j-jack*.) The cross-jack yard is the lower yard on the mizzenmast. (See PLATE 1.)
CROSS-PAWLS. Pieces of timber that keep a vessel together while in her frames.
CROSS-PIECE. A piece of timber connecting two bitts.
CROSS-SPALES. Pieces of timber placed across a vessel, and nailed to the frames, to keep the sides together until the knees are bolted.
CROSS-TREES. (See PLATE 1.) Pieces of oak supported by the cheeks and trestle-trees, at the mast-heads, to sustain the tops on the lower mast, and to spread the topgallant rigging at the topmast-head.
CROW-FOOT. A number of small lines rove through the uvrou to suspend an awning by.
CROWN of an anchor, is the place where the arms are joined to the shank.
To crown a knot, is to pass the strands over and under each other above the knot. (See PLATE 5, page 28.)
CRUTCH. A knee or piece of knee-timber, placed inside of a vessel, to secure the heels of the cant-timbers abaft. Also, the chock upon which the spanker-boom rests when the sail is not set.
CUCKOLD'S NECK. A knot by which a rope is secured to a spar, the two parts of the rope crossing each other, and seized together.
CUDDY. A cabin in the fore part of a boat.
CUNTLINE. The space between the bilges of two casks, stowed side by side. Where one cask is set upon the cuntline between two others, they are stowed *bilge* and *cuntline*.
CUT-WATER. The foremost part of a vessel's prow, which projects forward of the bows.
CUTTER. A small boat. Also, a kind of sloop.

DAGGER. A piece of timber crossing all the puppets of the bilge-ways to keep them together.
Dagger-knees. Knees placed obliquely, to avoid a port.
DAVITS. Pieces of timber or iron, with sheaves or blocks at their ends, projecting over a vessel's sides or stern, to hoist boats up to. Also, a spar

with a roller or sheave at its end, used for fishing the anchor, called a *fish-davit.*

DEAD-EYE. A circular block of wood, with three holes through it, for the lanyards of rigging to reeve through, without sheaves, and with a groove round it for an iron strap. (See page 39.)

DEAD-FLAT. One of the bends, amidships.

DEAD-LIGHTS. Ports placed in the cabin windows in bad weather.

DEAD-RECKONING. A reckoning kept by observing a vessel's courses and distances by the log, to ascertain her position.

DEAD-RISING, or RISING-LINE. Those parts of a vessel's floor, throughout her whole length, where the floor-timber is terminated upon the lower futtock.

DEAD-WATER. The eddy under a vessel's counter.

DEAD-WOOD. Blocks of timber, laid upon each end of the keel, where the vessel narrows.

DECK. The planked floor of a vessel, resting upon her beams.

DECK-STOPPER. A stopper used for securing the cable forward of the windlass or capstan, while it is overhauled. (See STOPPER.)

DEEP-SEA-LEAD. (Pronounced *dipsey.*) (See page 5.) The lead used in sounding at great depths.

DEPARTURE. The easting or westing made by a vessel. The bearing of an object on the coast from which a vessel commences her dead reckoning.

DERRICK. A single spar, supported by stays and guys, to which a purchase is attached, used to unload vessels, and for hoisting.

DOG. A short iron bar, with a fang or teeth at one end, and a ring at the other. Used for a purchase, the fang being placed against a beam or knee, and the block of a tackle hooked to the ring.

DOG-VANE. A small vane, made of feathers or buntin, to shew the direction of the wind.

DOG-WATCHES. Half watches of two hours each, from 4 to 6 and from 6 to 8 P.M. (See WATCH.)

DOLPHIN. A rope or strap round a mast to support the puddening, where the lower yards rest in the slings. Also, a spar or buoy with a large ring in it, secured to an anchor, to which vessels may bend their cables.

DOLPHIN-STRIKER. The martingale. (See PLATE 1.)

DOUSE. To lower suddenly.

DOWELLING. A method of coaking, by letting pieces into the solid, or uniting two pieces together by tenons.

DOWNHAUL. A rope used to haul down jibs, staysails, and studdingsails.

DRABLER. A piece of canvas laced to the bonnet of a sail, to give it more drop.

DRAG. A machine with a bag net, used for dragging on the bottom for anything lost.

DRAUGHT. The depth of water which a vessel requires to float her.

DRAW. A sail *draws* when it is filled by the wind.

To draw a jib, is to shift it over the stay to leeward when it is aback.

DRIFTS. Those pieces in the sheer-draught where the rails are cut off.

DRIVE. To scud before a gale, or to drift in a current.

DRIVER. A spanker.

DROP. The depth of a sail, from head to foot, amidships.

DRUM-HEAD The top of the capstan.

DUB. To reduce the end of a timber

DUCK. A kind of cloth, lighter and finer than canvas; used for small sails.

DUNNAGE. Loose wood or other matters, placed on the bottom of the hold, above the ballast, to stow cargo upon.

EARING. A rope attached to the cringle of a sail, by which it is bent or reefed.

EIKING. A piece of wood fitted to make good a deficiency in length.

ELBOW. Two crosses in a hawse. (See page 63.)

ESCUTCHEON. The part of a vessel's stern where her name is written.

EVEN-KEEL. The situation of a vessel when she is so trimmed that she sits evenly upon the water, neither end being down more than the other.

Euvrou. A piece of wood, by which the legs of the crow-foot to an awning are extended. (See Uvrou.)

Eye. The circular part of a shroud or stay, where it goes over a mast.

Eye-bolt. A long iron bar, having an eye at one end, driven through a vessel's deck or side into a timber or beam, with the eye remaining out, to hook a tackle to. If there is a ring through this eye, it is called a *ring-bolt.*

An Eye-splice is a certain kind of splice made with the end of a rope. (See Plate 5 and page 27.)

Eyelet-hole. A hole made in a sail for a cringle or roband to go through.

The Eyes of a Vessel. A familiar phrase for the forward part.

Face-pieces. Pieces of wood wrought on the fore part of the knee of the head.

Facing. Letting one piece of timber into another with a rabbet.

Fag. A rope is *fagged* when the end is untwisted.

Fair-leader. A strip of board or plank, with holes in it, for running rigging to lead through. Also, a block or thimble used for the same purpose.

Fake. One of the circles or rings made in coiling a rope.

Fall. That part of a tackle to which the power is applied in hoisting.

False Keel. Pieces of timber secured under the main keel of vessels.

Fancy-line. A line rove through a block at the jaws of a gaff, used as a down-haul. Also, a line used for cross-hauling the lee topping-lift.

Fashion-pieces. The aftermost timbers, terminating the breadth and forming the shape of the stern.

Fast. A rope by which a vessel is secured to a wharf. There are *bow* or *head, breast, quarter,* and *stern* fasts.

Fathom. Six feet.

Feather. *To feather an oar* in rowing, is to turn the blade horizontally with the top aft as it comes out of the water.

Feather-edged. Planks which have one side thicker than another.

Fenders. Pieces of rope or wood hung over the side of a vessel or boat, to protect it from chafing. The fenders of a neat boat are usually made of canvas and stuffed.

Fid. A block of wood or iron, placed through the hole in the heel of a mast, and resting on the trestle-trees of the mast below. This supports the mast. Also, a wooden pin, tapered, used in splicing large ropes, in opening eyes, &c.

Fiddle-block. A long shell, having one sheave over the other, and the lower smaller than the upper.

Fiddle-head. (See Head.)

Fife-rail. The rail going round a mast.

Figure-head. A carved head or full-length figure, over the cut-water.

Fillings. Pieces of timber used to make the curve fair for the mouldings, between the edges of the fish-front and the sides of the mast.

Filler. (See Made Mast.)

Finishing. Carved ornaments of the quarter-galley, below the second counter, and above the upper lights.

Fish. To raise the flukes of an anchor upon the gunwale. Also, to strengthen a spar when sprung or weakened, by putting in or fastening on another piece.

Fish-front, Fishes-sides. (See Made Mast.)

Fish-davit. The davit used for fishing an anchor.

Fish-hook. A hook with a pennant, to the end of which the fish-tackle is hooked.

Fish-tackle. The tackle used for fishing an anchor.

Flare. When the vessel's sides go out from the perpendicular. In opposition to *falling-home* or *tumbling-in.*

Flat. A sheet is said to be hauled *flat,* when it is hauled down close.

Flat-aback, when a sail is blown with its after surface against the mast.

Fleet. To come up a tackle and draw the blocks apart, for another pull, after they have been hauled *two-blocks.*

Fleet ho! The order given at such times. Also, to shift the position of a block or fall, so as to haul to more advantage.

FLEMISH-COIL. (See FRENCH FAKE.)

FLEMISH-EYE. A kind of eye-splice. (See PLATE 5 and page 27.)

FLEMISH-HORSE. An additional foot-rope at the ends of topsailyards.

FLOOR. The bottom of a vessel, on each side of the keelson.

FLOOR TIMBERS. Those timbers of a vessel which are placed across the keel. (See PLATE 3.)

FLOWING SHEET. When a vessel has the wind free, and the lee clews eased off.

FLUKES. The broad triangular plates at the extremity of the arms of an anchor, terminating in a point called the *bill.*

FLY. That part of a flag which extends from the Union to the extreme end. (See UNION.)

FOOT. The lower end of a mast or sail. (See FORE-FOOT.)

FOOT-ROPE. The rope stretching along a yard, upon which men stand when reefing or furling, formerly called *horses.*

FOOT-WALING. The inside planks or lining of a vessel, over the floor-timbers.

FORE. Used to distinguish the forward part of a vessel, or things in that direction; as, *fore mast, fore hatch,* in opposition to *aft* or *after.*

FORE-AND-AFT. Lengthwise with the vessel. In opposition to *athwartships.* (See SAILS.)

FORECASTLE. That part of the upper deck forward of the foremast; or, as some say, forward of the after part of the forechannels. (See PLATE 1.) Also, the forward part of the vessel, under the deck, where the sailors live, in merchant vessels.

FORE-FOOT. A piece of timber at the forward extremity of the keel, upon which the lower end of the stem rests. (See PLATE 3.)

FORE-GANGER. A short piece of rope grafted on a harpoon, to which the line is bent.

FORE-LOCK. A flat piece of iron, driven through the end of a bolt, to prevent its drawing.

FOREMAST. The forward mast of all vessels. (See PLATE 1.)

FOREREACH. To shoot ahead, especially when going in stays.

FORERUNNER. A piece of rag, terminating the stray-line of the log-line.

FORGE. *To forge ahead,* to shoot ahead; as, in coming to anchor, after the sails are furled. (See FOREREACH.)

FORMERS. Pieces of wood used for shaping cartridges or wads.

FOTHER, or FODDER. To draw a sail, filled with oakum, under a vessel's bottom, in order to stop a leak.

FOUL. The term for the opposite of clear.

FOUL ANCHOR. When the cable has a turn round the anchor.

FOUL HAWSE. When the two cables are crossed or twisted, outside the stem.

FOUNDER. A vessel *founders,* when she fills with water and sinks.

FOX. (See page 33.) Made by twisting together two or more rope-yarns.

A Spanish fox is made by untwisting a single yarn and laying it up the contrary way.

FRAP. To pass ropes round a sail to keep it from blowing loose. Also, to draw ropes round a vessel which is weakened, to keep her together.

FREE. A vessel is going *free* when she has a fair wind and her yards braced in. A vessel is said to be *free,* when the water has been pumped out of her.

FRESHEN. To relieve a rope, by moving its place; as, to *freshen the nip* of a stay, is to shift it, so as to prevent its chafing through.

To freshen ballast, is to alter its position.

FRENCH-FAKE. To coil a rope with each fake outside of the other, beginning in the middle. If there are to be riding fakes, they begin outside and go in; and so on. This is called a *Flemish coil.*

FULL-AND-BY. Sailing close-hauled on a wind.

Full-and-by! The order given to the man at the helm to keep the sails full and at the same time close to the wind.

FURL. To roll a sail up snugly on a yard or boom, and secure it.

FUTTOCK-PLATES. Iron plates crossing the sides of the top-rim perpendicularly.

The dead-eyes of the topmast rigging are fitted to their upper ends, and the futtock-shrouds to their lower ends.

FUTTOCK-SHROUDS. Short shrouds, leading from the lower ends of the futtock-plates to a bend round the lowermast just below the top.

FUTTOCK-STAFF. A short piece of wood or iron, seized across the upper part of the rigging, to which the catharpin legs are secured.

FUTTOCK-TIMBERS. (See PLATE 3.) Those timbers between the floor and naval timbers, and the top-timbers. There are two—the *lower*, which is over the floor, and the *middle*, which is over the naval timber. The naval timber is sometimes called the *ground futtock*.

GAFF. A spar, to which the head of a fore-and-aft sail is bent. (See PLATE 1.)

GAFF-TOPSAIL. A light sail set over a gaff, the foot being spread by it.

GAGE. The depth of water of a vessel. Also, her position as to another vessel, as having the *weather* or *lee gage*.

GALLEY. The place where the cooking is done.

GALLOWS-BITTS. A strong frame raised amidships, to support spare spars, &c., in port.

GAMMONING. (See PLATE 1.) The lashing by which the bowsprit is secured to the cut-water.

GANG-CASKS. Small casks, used for bringing water on board in boats.

GANGWAY. (See PLATE 1.) That part of a vessel's side, amidships, where people pass in and out of the vessel.

GANTLINE. (See GIRTLINE.)

GARBOARD-STREAK. (See PLATE 3.) The range of planks next the keel, on each side.

GARLAND. A large rope, strap, or grommet, lashed to a spar when hoisting it inboard.

GARNET. A purchase on the mainstay, for hoisting cargo.

GASKETS. Ropes or pieces of plated stuff, used to secure a sail to the yard or boom when it is furled. They are called a *bunt*, *quarter*, or *yard-arm gasket*, according to their position on the yard.

GIMBLET. To turn an anchor round by its stock. To turn anything round on its end.

GIRT. The situation of a vessel when her cables are too taut.

GIRTLINE. A rope rove through a single block aloft, making a whip purchase. Commonly used to hoist rigging by, in fitting it.

GIVE WAY! An order to men in a boat to pull with more force, or to begin pulling. The same as, *Lay out on your oars!* or, *Lay out!*

GLUT. A piece of canvas sewed into the centre of a sail near the head. It has an eyelet-hole in the middle for the bunt-jigger or becket to go through.

GOB-LINE, or GAUB-LINE. A rope leading from the martingale inboard. The same as *back-rope*.

GOODGEON. (See GUDGEON.)

GOOSE-NECK. An iron ring fitted to the end of a yard or boom, for various purposes.

GOOSE-WINGED. The situation of a course when the buntlines and lee clew are hauled up, and the weather clew down.

GORES. The angles at one or both ends of such cloths as increase the breadth or depth of a sail.

GORING-CLOTHS. Pieces cut obliquely and put in to add to the breadth of a sail.

GRAFTING. (See page 33.) A manner of covering a rope by weaving together yarns.

GRAINS. An iron with four or more barbed points to it, used for striking small fish.

GRAPNEL. A small anchor with several claws, used to secure boats.

GRAPPLING IRONS. Crooked irons, used to seize and hold fast another vessel.

GRATING. Open lattice-work of wood. Used principally to cover hatches in good weather.

GREAVE. To clean a ship's bottom by burning.

GRIPE. The outside timber of the fore-foot, under water, fastened to the lower stem-piece. (See PLATE 3.) A vessel *gripes* when she tends to come up into the wind.

GRIPES. Bars of iron, with lanyards, rings, and clews, by which a large boat is lashed to the ring-bolts of the deck. Those for a quarter-boat are made of long strips of matting, going round her and set taut by a lanyard.

GROMMET. (See PLATE 5 and page 28.) A ring formed of rope, by laying round a single strand.

GROUND-TACKLE. General term for anchors, cables, warps, springs, &c., everything used in securing a vessel at anchor.

GROUND-TIER. The lowest tier of casks in a vessel's hold.

GUESS-WARP, or GUESS-ROPE. A rope fastened to a vessel or wharf, and used to tow a boat by; or to haul it out to the swinging-boomend, when in port.

GUN-TACKLE PURCHASE. A purchase made by two single blocks. (See page 54.)

GUNWALE. (Pronounced *gun-nel.*) The upper rail of a boat or vessel.

GUY. A rope attaching to anything to steady it, and bear it one way and another in hoisting.

GYBE. (Pronounced *jibe.*) To shift over the boom of a fore-and-aft sail.

HAIL. To speak or call to another vessel, or to men in a different part of a ship.

HALYARDS. Ropes or tackles used for hoisting and lowering yards, gaffs, and sails.

HALF-HITCH. (See PLATE 5 and page 30.)

HAMMOCK. A piece of canvas, hung at each end, in which seamen sleep.

HAND. To *hand* a sail is to *furl* it.

Bear-a-hand; make haste.

Lend-a-hand; assist.

Hand-over-hand; hauling rapidly on a rope, by putting one hand before the other alternately.

HAND-LEAD. (See page 4.) A small lead, used for sounding in rivers and harbours.

HANDSOMELY. Slowly, carefully. Used for an order, as, "Lower handsomely!"

HANDSPIKE. A long wooden bar, used for heaving at the windlass.

HANDY BILLY. A watch-tackle.

HANKS. Rings or hoops of wood, rope, or iron, round a stay, and seized to the luff of a fore-and-aft sail.

HARPINGS. The fore part of the wales, which encompass the bows of a vessel, and are fastened to the stem. (See PLATE 3.)

HARPOON. A spear used for striking whales and other fish.

HATCH, or HATCHWAY. An opening in the deck to afford a passage up and down. The coverings over these openings are also called *hatches.*

Hatch-bar is an iron bar going across the hatches to keep them down.

HAUL. *Haul her wind,* said of a vessel when she comes up close upon the wind.

HAWSE. The situation of the cables before a vessel's stem, when moored. Also, the distance upon the water a little in advance of the stem; as, a vessel sails *athwart the hawse,* or anchors *in the hawse* of another.

Open hawse. When a vessel rides by two anchors, without any cross in her cables.

HAWSE-HOLE. The hole in the bows through which the cable runs.

HAWSE-PIECES. Timbers through which the hawse-holes are cut.

HAWSE-BLOCK. A block of wood fitted into a hawse-hole at sea.

HAWSER. A large rope used for various purposes, as warping, for a spring, &c.

HAWSER-LAID, or CABLE-LAID rope, is rope laid with nine strands against the sun. (See PLATE 5 and page 26.)

HAZE. A term for punishing a man by keeping him unnecessarily at work upon disagreeable or difficult duty.

HEAD. The work at the prow of a vessel. If it is a carved figure, it is called a *figure-head;* if simple carved work, bending over and out, a *billet-head;*

and if bending in, like the head of a violin, a *fiddle-head.* Also, the upper end of a mast, called a *mast-head.* (See BY-THE-HEAD. See FAST.)

HEAD-LEDGES. Thwartship piece that frame the hatchways.

HEAD-SAILS. A general name given to all sails that set forward of the fore-mast.

HEART. A block of wood in the shape of a heart, for stays to reeve through.

HEART-YARNS. The centre yarns of a strand.

HEAVE SHORT. To heave in on the cable until the vessel is nearly over her anchor.

HEAVE-TO. To put a vessel in the position of lying-to. (See LIE-TO.)

HEAVE IN STAYS. To go about in tacking.

HEAVER. A short wooden bar, tapering at each end. Used as a purchase.

HEEL. The after part of the keel. Also, the lower end of a mast or boom. Also, the lower end of the stern-post.

To heel, is to lie over on one side.

HEELING. The square part of the lower end of a mast, through which the fid-hole is made.

HELM. The machinery by which a vessel is steered, including the rudder, tiller, wheel, &c. Applied more particularly, perhaps, to the tiller.

HELM-PORT. The hole in the counter through which the rudder-head passes.

HELM-PORT-TRANSOM. A piece of timber placed across the lower counter, inside, at the height of the helm-port, and bolted through every timber, for the security of that port. (See PLATE 3.)

HIGH AND DRY. The situation of a vessel when she is aground, above water mark.

HITCH. A peculiar manner of fastening ropes. (See PLATE 5, and page 30.)

HOG. A flat, rough broom, used for scrubbing the bottom of a vessel.

HOGGED. The state of a vessel when, by any strain, she is made to droop at each end, bringing her centre up.

HOLD. The interior of a vessel, where the cargo is stowed.

HOLD-WATER. To stop the progress of a boat by keeping the oar-blades in the water.

HOLY-STONE. A large stone, used for cleaning a ship's decks.

HOME. The sheets of a sail are said to be *home,* when the clews are hauled chock out to the sheave-holes. An anchor *comes home* when it is loosened from the ground and is hove in toward the vessel.

HOOD. A covering for a companion hatch, skylight, &c.

HOOD-ENDS, or HOODING-ENDS, or WHOODEN-ENDS. Those ends of the planks which fit into the rabbets of the stem or stern-post.

HOOK-AND-BUTT. The scarfing, or laying the ends of timbers over each other.

HORNS. The jaws of booms. Also, the ends of cross-trees.

HORSE. (See FOOT-ROPE.)

HOUNDS. Those projections at the mast-head serving as shoulders for the top or trestle-trees to rest upon.

HOUSE. To *house* a mast is to lower it about half its length, and secure it by lashing its heel to the mast below. (See page 21.)

To house a gun, is to run it in clear of the port and secure it.

HOUSING, or HOUSE-LINE. (Pronounced *houze-lin.*) A small cord made of three small yarns, and used for seizings.

HULL. The body of a vessel. (See A-HULL.)

IN-AND-OUT. A term sometimes used for the scantline of the timbers, the moulding way, and particularly for those bolts that are driven into the hanging and lodging knees, through the sides, which are called *in-and-out bolts.*

INNER-POST. A piece brought on at the fore side of the main-post, and generally continued as high as the wing-transom, to seat the other transoms upon.

IRONS. A ship is said to be *in irons,* when, in working, she will not cast one way or the other.

JACK. A common term for the *jack-cross-trees.* (See UNION.)
JACK-BLOCK. A block used in sending topgallantmasts up and down.
JACK-CROSS-TREES. (See PLATE 1.) Iron cross-trees at the head of long topgallantmasts.
JACK-STAFF. A short staff, raised at the bowsprit cap, upon which the Union Jack is hoisted.
JACK-STAYS. Ropes stretched taut along a yard to bend the head of the sail to. Also, long strips of wood or iron, used now for the same purpose.
JACK-SCREW. A purchase, used for stowing cotton.
JACOB'S LADDER. A ladder made of rope, with wooden steps.
JAWS. The inner ends of booms or gaffs, hollowed in.
JEERS. Tackles for hoisting the lower yards.
JEWEL-BLOCKS. Single blocks at the yard-arms, through which the studding-sail halyards lead.
JIB. (See PLATE 2.) A triangular sail set on a stay, forward.
Flying-jib sets outside of the jib; and the *jib-o'-jib* outside of that.
JIBBOOM. (See PLATE 1.) The boom, rigged out beyond the bowsprit, to which the tack of the jib is lashed.
JIGGER. A small tackle, used about decks or aloft.
JOLLY-BOAT. A small boat, usually hoisted at the stern.
JUNK. Condemned rope, cut up and used for making mats, swabs, oakum, &c.
JURY-MAST. A temporary mast, rigged at sea, in place of one lost.

KECKLING. Old rope wound round cables, to keep them from chafing. (See ROUNDING.)
KEDGE. A small anchor, with an iron stock, used for warping.
To kedge, is to warp a vessel ahead by a kedge and hawser.
KEEL. (See PLATE 3.) The lowest and principal timber of a vessel, running fore-and-aft its whole length, and supporting the whole frame. It is composed of several pieces, placed lengthwise, and scarfed and bolted together. (See FALSE KEEL.)
KEEL-HAUL. To haul a man under a vessel's bottom, by ropes at the yard-arms on each side. Formerly practised as a punishment in ships of war.
KEELSON. (See PLATE 3.) A timber placed over the keel on the floor-timbers, and running parallel with it.
KENTLEDGE. Pig-iron ballast, laid each side of the keelson.
KEVEL, or CAVIL. A strong piece of wood, bolted to some timber or stanchion, used for belaying large ropes to.
KEVEL-HEADS. Timber-heads, used as kevels.
KINK. A twist in a rope.
KNEES. (See PLATE 3.) Crooked pieces of timber, having two arms, used to connect the beams of a vessel with her timbers. (See DAGGER.)
Lodging-knees, are placed horizontally, having one arm bolted to a beam, and the other across two of the timbers.
Knee of the head, is placed forward of the stem, and supports the figure-head.
KNIGHT-HEADS, or BOLLARD-TIMBERS. The timbers next the stem on each side, and continued high enough to form a support for the bowsprit. (See PLATE 3.)
KNITTLES, or NETTLES. (See page 32.) The halves of two adjoining yarns in a rope, twisted up together, for pointing or grafting. Also, small line used for seizings and for hammock-clews.
KNOCK-OFF! An order to leave off work.
KNOT. A division on the log-line, answering to a mile of distance. (See page 5.)

LABOUR. A vessel is said to labour when she rolls or pitches heavily.
LACING. Rope used to lash a sail to a gaff, or a bonnet to a sail. Also, a piece of compass or knee timber, fayed to the back of the figure-head and the knee of the head, and bolted to each.

LAND-FALL. The making land after being at sea.

A good land-fall, is when a vessel makes the land as intended.

LAND HO! The cry used when land is first seen.

LANYARDS. Ropes rove through dead-eyes for setting up rigging. Also, a rope made fast to anything to secure it, or as a handle, is called a *lanyard*.

LARBOARD. The left side of a vessel, looking forward.

LARBOWLINES. The familiar term for the men in the larboard watch.

LARGE. A vessel is said to be going *large*, when she has the wind free.

LATCHINGS. Loops on the head rope of a bonnet, by which it is laced to the foot of the sail.

LAUNCH. A large boat. The LONG-BOAT.

LAUNCH HO! High enough!

LAY. To come or to go; as, *Lay aloft! Lay forward! Lay aft!* Also, the direction in which the strands of a rope are twisted; as, from left to right, or from right to left.

LEACH. The border or edge of a sail, at the sides.

LEACHLINE. A rope used for hauling up the leach of a sail.

LEAD. A piece of lead, in the shape of a cone or pyramid, with a small hole at the base, and a line attached to the upper end, used for sounding. (See HAND-LEAD, DEEP-SEA-LEAD.)

LEADING-WIND. A fair wind. More particularly applied to a wind abeam or quartering.

LEAK. A hole or breach in a vessel, at which the water comes in.

LEDGES. Small pieces of timber placed athwartships under the decks of a vessel, between the beams.

LEE. The side opposite to that from which the wind blows; as, if a vessel has the wind on her starboard side, that will be the *weather*, and the larboard will be the *lee* side.

A lee shore is the shore upon which the wind is blowing.

Under the lee of anything, is when you have that between you and the wind.

By the lee. The situation of a vessel, going free, when she has fallen off so much as to bring the wind round her stern, and to take her sails aback on the other side.

LEE-BOARD. A board fitted to the lee side of flat-bottomed boats, to prevent their drifting to leeward.

LEE-GAGE. (See GAGE.)

LEEWAY. What a vessel loses by drifting to leeward. When sailing close-hauled with all sail set, a vessel should make no leeway. If the top-gallant sails are furled, it is customary to allow one point; under close-reefed topsails, two points; when under one close-reefed sail, four or five points.

LEEFANGE. An iron bar, upon which the sheets of fore-and-aft sails traverse. Also, a rope rove through the cringle of a sail which has a bonnet to it, for hauling in, so as to lace on the bonnet. Not much used.

LEEWARD. (Pronounced *lu-ard*.) The lee side. In a direction opposite to that from which the wind blows, which is called *windward*. The opposite of *lee* is *weather*, and of *leeward* is *windward*; the two first being adjectives.

LIE-TO, is to stop the progress of a vessel at sea, either by counter-bracing the yards, or by reducing sail so that she will make little or no headway, but will merely come-to and fall-off by the counteraction of the sails and helm.

LIFE-LINES. Ropes carried along yards, booms, &c., or at any part of the vessel, for men to hold on by.

LIFT. A rope or tackle, going from the yard-arms to the mast-head, to support and move the yard. Also, a term applied to the sails when the wind strikes them on the leaches and raises them slightly.

LIGHT. To move or lift anything along; as, to "*Light* out to windward!" that is, haul the sail over to windward. The *light sails* are all above the topsails, also the studdingsails and flying jib.

LIGHTER. A large boat, used in loading and unloading vessels.

LIMBERS, or LIMBER-HOLES. Holes cut in the lower part of the floor-timbers, next the keelson, forming a passage for the water fore-and-aft.
Limber-boards are placed over the limbers, and are moveable.
Limber-rope. A rope rove fore-and-aft through the limbers, to clear them if necessary.
Limber-streak. The streak of foot-waling nearest the keelson.

LIST. The inclination of a vessel to one side; as, a *list* to port, or a *list* to starboard.

LIZARD. A piece of rope, sometimes with two legs, and one or more iron thimbles spliced into it. It is used for various purposes. One with two legs, and a thimble to each, is often made fast to the topsail tye, for the buntlines to reeve through. A single one is sometimes used on the swinging-boom topping-lift.

LOCKER. A chest or box, to stow anything away in.
Chain-locker. Where the chain cables are kept.
Boatswain's locker. Where tools and small stuff for working upon rigging are kept.

LOG, or LOG-BOOK. A journal kept by the chief officer, in which the situation of the vessel, winds, weather, courses, distances, and everything of importance that occurs, is noted down.
Log. A line with a piece of board, called the *log-chip*, attached to it, wound upon a reel, and used for ascertaining the ship's rate of sailing. (See page 5.)

LONG-BOAT. The largest boat in a merchant vessel. When at sea, it is carried between the fore and main masts.

LONGERS. The longest casks, stowed next the keelson.

LONG-TIMBERS. Timbers in the cant-bodies, reaching from the dead-wood to the head of the second futtock.

LOOF. That part of a vessel where the planks begin to bend as they approach the stern.

LOOM. That part of an oar which is within the row-lock. Also, to appear above the surface of the water; to appear larger than nature, as in a fog.

LUBBER'S-HOLE. A hole in the top, next the mast.

LUFF. To put the helm so as to bring the ship up nearer to the wind.
Spring-a-luff! Keep your luff! Orders to luff. Also, the roundest part of a vessel's bow. Also, the forward leach of fore-and-aft sails.

LUFF-TACKLE. A purchase composed of a double and single block. (See page 35.)
Luff-upon-Luff. A luff tackle applied to the fall of another.

LUGGER. A small vessel carrying lug-sails.
Lug-sail. A sail used in boats and small vessels, bent to a yard which hangs obliquely to the mast.

LURCH. The sudden rolling of a vessel to one side.

LYING-TO. (See LIE-TO.)

MADE. A *made mast* or *block* is one composed of different pieces. A ship's lower mast is a made spar, her topmast is a whole spar.

MALL, or MAUL. (Pronounced *mawl.*) A heavy iron hammer used in driving bolts. (See TOP-MAUL.)

MALLET. A small maul, made of wood; as, *caulking-mallet;* also, *serving-mallet,* used in putting service on a rope.

MANGER. A coaming just within the hawse hole. Not much in use.

MAN-ROPES. Ropes used in going up and down a vessel's side.

MARL. To wind or twist a small line or rope round another.

MARLINE. (Pronounced *mar-lin.*) Small two-stranded stuff, used for marling. A finer kind of spunyarn.

MARLING-HITCH. A kind of hitch used in marling.

MARLINGSPIKE. An iron pin, sharpened at one end, and having a hole in the other for a lanyard. Used both as a fid and a heaver.

MARRY. To join ropes together by a worming over both.

Martingale. A short, perpendicular spar, under the bowsprit-end, used for guying down the head-stays. (See Dolphin-striker.)
Mast. A spar set upright from the deck, to support rigging, yards, and sails. Masts are whole or *made.*
Mat. Made of strands of old rope, and used to prevent chafing.
Mate. An officer under the master.
Maul. (See Mall.)
Mend. *To mend service,* is to add more to it.
Meshes. The places between the lines of a netting.
Mess. Any number of men who eat or lodge together.
Messenger. A rope used for heaving in a cable by the capstan.
Midships. The timbers at the broadest part of the vessel. (See Amidships.)
Miss-stays. To fail of going about from one tack to another. (See page 51.)
Mizzen-mast. The aftermost mast of a ship. (See Plate 1.) The spanker is sometimes called the *mizzen.*
Monkey Block. A small single block strapped with a swivel.
Moon-sail. A small sail sometimes carried in light winds, above a skysail.
Moor. To secure by two anchors. (See page 62.)
Mortice. A *morticed block* is one made out of a whole block of wood with a hole cut in it for the sheave; in distinction from a *made block.* (See page 34.)
Moulds. The patterns by which the frames of a vessel are worked out.
Mouse. To put turns of rope yarn or spunyarn round the end of a hook and its standing part, when it is hooked to anything, so as to prevent its slipping out.
Mousing. A knot or puddening, made of yarns, and placed on the outside of a rope.
Muffle. Oars are muffled by putting mats or canvas round their looms in the row-locks.
Munions. The pieces that separate the lights in the galleries.

Naval Hoods, or Hawse Bolsters. Plank above and below the hawse-holes.
Neap Tides. Low tides, coming at the middle of the moon's second and fourth quarters. (See Spring Tides.)
Neaped, or Beneaped. The situation of a vessel when she is aground at the height of the spring tides.
Near. Close to wind. "Near!" the order to the helmsman when he is too near the wind.
Netting. Network of rope or small lines. Used for stowing away sails or hammocks.
Nettles. (See Knittles.)
Ninepin Block. A block in the form of a ninepin, used for a *fair-leader* in the rail.
Nip. A short turn in a rope.
Nippers. A number of yarns marled together, used to secure a cable to the messenger.
Nock. The forward upper end of a sail that sets with a boom.
Nun-buoy. A buoy tapering at each end.
Nut. Projections on each side of the shank of an anchor to secure the stock to its place.

Oakum. Stuff made by picking rope-yarns to pieces. Used for caulking and other purposes.
Oar. A long wooden instrument with a flat blade at one end, used for propelling boats.
Off-and-on. To stand on different tacks towards and from the land.
Offing. Distance from the shore.
Orlop. The lower deck of a ship of the line; or that on which the cables are stowed.
Outhaul. A rope used for hauling out the clew of a boom sail.
Outrigger. A spar rigged out to windward from the tops or cross-trees, to spread the breast-backstays. (See page 11.)

OVERHAUL. *To overhaul a tackle,* is to let go the fall and pull on the leading parts so as to separate the blocks.

To overhaul a rope, is generally to pull a part through a block so as to make slack.

To overhaul rigging, is to examine it.

OVER-RAKE. Said of heavy seas which come over a vessel's head when she is at anchor, head to the sea.

PAINTER. A rope attached to the bows of a boat, used for making her fast.

PALM. A piece of leather fitted over the hand, with an iron for the head of a needle to press against in sewing upon canvas. Also, the fluke of an anchor.

PANCH. (See PAUNCH.)

PARBUCKLE. To hoist or lower a spar or cask by single ropes passed round it.

PARCEL. (See page 26.) To wind tarred canvas (called *parcelling*) round a rope.

PARCELLING. (See PARCEL.)

PARLIAMENT-HEEL. The situation of a vessel when she is careened.

PARRAL. The rope by which a yard is confined to a mast at its centre.

PART. To break a rope.

PARTNERS. A framework of short timber fitted to the hole in a deck, to receive the heel of a mast or pump, &c.

PAZAREE. A rope attached to the clew of the foresail and rove through a block on the swinging boom. Used for guying the clews out when before the wind.

PAUNCH MAT. A thick mat, placed at the slings of a yard or elsewhere.

PAWL. A short bar of iron, which prevents the capstan or windlass from turning back.

To pawl, is to drop a pawl and secure the windlass or capstan.

PAY-OFF. When a vessel's head falls off from the wind.

To pay. To cover with tar or pitch.

To pay out. To slack up on a cable and let it run out.

PEAK. The upper outer corner of a gaff-sail.

PEAK. (See A-PEAK.)

A *stay-peak* is when the cable and fore stay form a line.

A *short-stay peak* is when the cable is too much in to form this line.

PENDANT, or PENNANT. A long narrow piece of bunting, carried at the mast-head.

Broad-pennant, is a square piece, carried in the same way, in a commodore's vessel.

Pennant. A rope to which a purchase is hooked. A long strap fitted at one end to a yard or mast-head, with a hook or block at the other end, for a brace to reeve through, or to hook a tackle to.

PILLOW. A block which supports the inner end of the bowsprit.

PIN. The axis on which a sheave turns. Also, a short piece of wood or iron to belay ropes to.

PINK-STERN. A high, narrow stern.

PINNACE. A boat, in size between the launch and a cutter.

PINTLE. A metal bolt, used for hanging a rudder.

PITCH. A resin taken from pine, and used for filling up the seams of a vessel.

PLANKS. Thick, strong boards, used for covering the sides and decks of vessels.

PLAT. A braid of foxes. (See FOX.)

PLATE. (See CHAIN-PLATE.)

PLUG. A piece of wood, fitted into a hole in a vessel or boat, so as to let in or keep out water.

POINT. To take the end of a rope and work it over with knittles. (See page 32. See REEF-POINTS.)

POLE. Applied to the highest mast of a ship, usually painted; as, *skysail pole.*

POOP. A deck raised over the afterpart of the spar deck. A vessel is *pooped* when the sea breaks over her stern.

Poppets. Perpendicular pieces of timber fixed to the fore-and-aft part of the bilge-ways in launching.

Port. Used instead of *larboard.*

To port the helm, is to put it to the larboard.

Port, or **Port-hole.** Holes in the side of a vessel, to point cannon out of. (See Bridle.)

Portoise. The gunwale. The yards are *a-portoise* when they rest on the gunwale.

Port-sills. (See Sills.)

Preventer. An additional rope or spar, used as a support.

Prick. A quantity of spunyarn or rope laid close up together.

Pricker. A small marlinspike, used in sail-making. It generally has a wooden handle.

Puddening. A quantity of yarns, matting or oakum, used to prevent chafing.

Pump-brake. The handle to the pump.

Purchase. A mechanical power which increases the force applied.

To purchase, is to raise by a purchase.

Quarter. The part of a vessel's side between the after part of the main chains and the stern. The *quarter* of a yard is between the slings and the yard-arm.

The wind is said to be *quartering,* when it blows in a line between that of the keel and the beam and abaft the latter.

Quarter-block. A block fitted under the quarters of a yard on each side the slings, for the clewlines and sheets to reeve through.

Quarter-deck. That part of the upper deck abaft the mainmast.

Quarter-master. A petty officer in a man-of-war, who attends the helm and binnacle at sea, and watches for signals, &c., when in port.

Quick-work. That part of a vessel's side which is above the chain-wales and decks. So called in ship-building.

Quilting. A coating about a vessel, outside, formed of ropes woven together.

Quoin. A wooden wedge for the breech of a gun to rest upon.

Race. A strong, rippling tide.

Rack. To seize two ropes together, with cross-turns. Also, a *fair-leader* for running rigging.

Rack-block. A course of blocks made from one piece of wood, for fair-leaders.

Rake. The inclination of a mast from the perpendicular.

Ramline. A line used in mast-making to get a straight middle line on a spar.

Range of Cable. A quantity of cable, more or less, placed in order for letting go the anchor or paying out.

Ratlines. (Pronounced *rat-lins.*) Lines running across the shrouds horizontally, like the rounds of a ladder, and used to step upon in going aloft.

Rattle down Rigging. To put ratlines upon rigging. It is still called rattling *down,* though they are now rattled *up;* beginning at the lowest. (See page 9.)

Razee. A vessel of war which has had one deck cut down.

Reef. To reduce a sail by taking in upon its head, if a square sail, and its foot, if a fore-and-aft sail.

Reef-band. A band of stout canvas sewed on the sail across, with points in it, and earings at each end for reefing.

A *reef* is all of the sail that is comprehended between the head of the sail and the first reef-band, or between two reef-bands.

Reef-tackle. A tackle used to haul the middle of each leach up toward the yard, so that the sail may be easily reefed.

Reeve. To pass the end of a rope through a block, or any aperture.

Relieving Tackle. A tackle hooked to the tiller in a gale of wind, to steer by in case anything should happen to the wheel or tiller-ropes.

Render. To pass a rope through a place. A rope is said to *render* or not, according as it goes freely through any place.

RIB-BANDS. Long, narrow, flexible pieces of timber nailed to the outside of the ribs, so as to encompass the vessel lengthwise.

RIBS. A figurative term for a vessel's timbers.

RIDE AT ANCHOR. To lie at anchor. Also, to bend or bear down by main strength and weight; as, to *ride down* the main tack.

RIDERS. Interior timbers placed occasionally opposite the principal ones, to which they are bolted, reaching from the keelson to the beams of the lower deck. Also, casks forming the second tier in a vessel's hold.

RIGGING. The general term for all the ropes of a vessel. (See RUNNING, STANDING.) Also, the common term for the shrouds with their ratlines; as, the *main rigging, mizzen rigging*, &c.

RIGHT. To *right* the helm, is to put it amidships.

RIM. The edge of a top.

RING. The iron ring at the upper end of an anchor, to which the cable is bent.

RING-BOLT. An eye-bolt with a ring through the eye. (See EYE-BOLT.)

RING-TAIL. A small sail, shaped like a jib, set abaft the spanker in light winds.

ROACH. A curve in the foot of a square sail, by which the clews are brought below the middle of the foot. The *roach* of a fore-and-aft sail is in its forward leach.

ROAD, or ROADSTEAD. An anchorage at some distance from the shore.

ROBANDS. (See ROPE-BANDS.)

ROLLING TACKLE. Tackles used to steady the yards in a heavy sea.

ROMBOWLINE. Condemned canvas, rope, &c.

ROPE-BANDS, or ROBANDS. Small pieces of two or three yarn spunyarn or marline, used to confine the head of the sail to the yard or gaff.

ROPE-YARN. A thread of hemp, or other stuff, of which a rope is made. (See page 25.)

ROUGH-TREE. An unfinished spar.

ROUND IN. To haul in on a rope, especially a weather-brace.

ROUND UP. To haul up on a tackle.

ROUNDING. A service of rope, hove round a spar or larger rope.

ROWLOCKS, or ROLLOCKS. Places cut in the gunwale of a boat for the oar to rest in while pulling.

ROYAL. A light sail next above a topgallant sail. (See PLATE 2.)

ROYAL YARD. The yard from which the royal is set. The fourth from the deck. (See PLATE 1.)

RUBBER. A small instrument used to rub or flatten down the seams of a sail in sail-making.

RUDDER. The machine by which a vessel or boat is steered.

RUN. The after part of a vessel's bottom, which rises and narrows in approaching the stern-post.

By the run. To let go *by the run*, is to let go altogether, instead of slacking off.

RUNG-HEADS. The upper ends of the floor-timbers.

RUNNER. A rope used to increase the power of a tackle. It is rove through a single block which you wish to bring down, and a tackle is hooked to each end, or to one end, the other being made fast.

RUNNING RIGGING. The ropes that reeve through blocks, and are pulled and hauled, such as braces, halyards, &c.; in opposition to the *standing rigging*, the ends of which are securely seized, such as stays, shrouds, &c. (See page 25.)

SADDLES. Pieces of wood hollowed out to fit on the yards to which they are nailed, having a hollow in the upper part for the boom to rest in.

SAG. To *sag to leeward*, is to drift off bodily to leeward.

SAILS are of two kinds: *square sails*, which hang from yards, their foot lying across the line of the keel, as the courses, topsails, &c.; and *fore-and-aft sails*, which set upon gaffs, or on stays, their foot running with the line of the keel, as jib, spanker, &c.

SAIL HO! The cry used when a sail is first discovered at sea.

Save-all. A small sail sometimes set under the foot of a lower studdingsail. (See Water Sail.)

Scantling. A term applied to any piece of timber, with regard to its breadth and thickness, when reduced to the standard size.

Scarf. To join two pieces of timber at their ends by shaving them down and placing them over-lapping.

Schooner. (See Plate 4.) A small vessel with two masts and no tops.

A *fore-and-aft schooner* has only fore-and-aft sails.

A *topsail schooner* carries a square fore-topsail, and frequently, also, top-gallantsail and royal. There are some schooners with three masts. They also have no tops.

A *maintopsail schooner* is one that carries square topsails, fore and aft.

Score. A groove in a block or dead-eye.

Scotchman. A large batten placed over the turnings-in of rigging. (See Batten.)

Scraper. A small, triangular iron instrument, with a handle fitted to its centre, and used for scraping decks and masts.

Scrowl. A piece of timber bolted to the knees of the head, in place of a figure-head.

Scud. To drive before a gale, with no sail, or only enough to keep the vessel ahead of the sea. Also, low, thin clouds that fly swiftly before the wind.

Scull. A short oar.

To scull, is to impel a boat by one oar at the stern.

Scuppers. Holes cut in the water-ways for the water to run from the decks.

Scuttle. A hole cut in a vessel's deck, as a hatchway. Also, a hole cut in any part of a vessel.

To scuttle, is to cut or bore holes in a vessel to make her sink.

Scuttle-butt. (See Butt.)

Seams. The intervals between planks in a vessel's deck or side.

Seize. To fasten ropes together by turns of small stuff.

Seizings. (See page 32.) The fastenings of ropes that are seized together.

Selvagee. A skein of rope-yarns or spunyarn, marled together. Used as a neat strap. (See page 32.)

Send. When a ship's head or stern pitches suddenly and violently into the trough of the sea.

Sennit, or **Sinnit.** (See page 33.) A braid, formed by plaiting rope-yarns or spunyarn together. Straw, plaited in the same way for hats, is called sennit.

Serve. (See page 26.) To wind small stuff, as rope-yarns, spunyarn, &c., round a rope, to keep it from chafing. It is wound and hove round taut by a serving-board or mallet.

Service, is the stuff so wound round.

Set. To *set up rigging,* is to tauten it by tackles. The seizings are then put on afresh.

Shackles. Links in a chain cable which are fitted with a moveable bolt so that the chain can be separated.

Shakes. The staves of hogsheads taken apart.

Shank. The main piece in an anchor, at one end of which the stock is made fast, and at the other the arms.

Shank-painter. A strong rope by which the lower part of the shank of an anchor is secured to the ship's side.

Sharp up. Said of yards when braced as near fore-and aft as possible.

Sheathing. A casing or covering on a vessel's bottom.

Shears. Two or more spars, raised at angles and lashed together near their upper ends, used for taking in masts. (See page 33.)

Shear-hulk. An old vessel fitted with shears, &c., and used for taking out and putting in the masts of other vessels.

Sheave. The wheel in a block upon which the rope works.

Sheave-hole, the place cut in a block for the ropes to reeve through.

Sheep-shank. A kind of hitch or bend, used to shorten a rope temporarily. (See Plate 5, and page 31.)

SHEER, or SHEER-STRAKE. The line of plank on a vessel's side, running fore-and-aft under the gunwale. Also, a vessel's position when riding by a single anchor.

SHEET. A rope used in setting a sail, to keep the clew down to its place. With square sails, the sheets run through each yard-arm. With boom sails, they haul the boom over one way and another. They keep down the inner clew of a studdingsail and the after clew of a jib. (See HOME.)

SHEET ANCHOR. A vessel's largest anchor: not carried at the bow.

SHELL. The case of a block.

SHINGLE. (See BALLAST.)

SHIP. A vessel with three masts, with tops and yards to each. (See PLATE 4.) To enter on board a vessel. To fix anything in its place.

SHIVER. To shake the wind out of a sail by bracing it so that the wind strikes upon the leach.

SHOE. A piece of wood used for the bill of an anchor to rest upon, to save the vessel's side. Also, for the heels of shears, &c.

SHOE-BLOCK. A block with two sheaves, one above the other, the one horizontal and the other perpendicular.

SHORE. A prop or stanchion, placed under a beam. To *shore*, to prop up.

SHROUDS. A set of ropes reaching from the mast-heads to the vessel's sides, to support the masts.

SILLS. Pieces of timber put in horizontally between the frames to form and secure any opening; as, for ports.

SISTER BLOCK. A long piece of wood with two sheaves in it, one above the other, with a score between them for a seizing, and a groove around the block, lengthwise.

SKIDS. Pieces of timber placed up and down a vessel's side, to bear any articles off clear that are hoisted in.

SKIN. The part of a sail which is outside and covers the rest when it is furled. Also, familiarly, the sides of the hold; as, an article is said to be stowed *next the skin.*

SKYSAIL. A light sail next above the royal. (See PLATE 2.)

SKY-SCRAPER. A name given to a skysail when it is triangular.

SLABLINE. A small line used to haul up the foot of a course.

SLACK. The part of a rope or sail that hangs down loose.
Slack in stays, said of a vessel when she works slowly in tacking.

SLEEPERS. The knees that connect the transoms to the after timbers on the ship's quarter.

SLING. To set a cask, spar, gun, or other article, in ropes, so as to put on a tackle and hoist or lower it.

SLINGS. The ropes used for securing the centre of a yard to the mast. *Yard-slings* are now made of iron. Also, a large rope fitted so as to go round any article which is to be hoisted or lowered.

SLIP. To let a cable go and stand out to sea. (See page 64.)

SLIP-ROPE. A rope bent to the cable just outside the hawse-hole, and brought in on the weather quarter, for slipping. (See page 64.)

SLOOP. A small vessel with one mast. (See PLATE 4.)

SLOOP OF WAR. A vessel of any rig, mounting between 18 and 32 guns.

SLUE. To turn anything round or over.

SMALL STUFF. The term for spunyarn, marline, and the smallest kinds of rope, such as ratline-stuff, &c.

SNAKE. To pass small stuff across a seizing, with marline hitches at the outer turns.

SNATCH-BLOCK. A single block, with an opening in its side below the sheave, or at the bottom, to receive the bight of a rope.

SNOTTER. A rope going over a yard-arm, with an eye, used to bend a tripping-line to in sending down topgallant and royal yards in vessels of war.

SNOW. A kind of brig, formerly used.

SNUB. To check a rope suddenly.

SNYING. A term for a circular plank edgewise, to work in the bows of a vessel.

So! An order to 'vast hauling upon anything when it has come to its right position.

SOLE. A piece of timber fastened to the foot of the rudder, to make it level with the false keel.

SOUND. To get the depth of water by a lead and line. (See page 60.) The pumps are *sounded* by an iron *sounding rod*, marked with a scale of feet and inches.

SPAN. A rope with both ends made fast, for a purchase to be hooked to its bight.

SPANKER. The after sail of a ship or bark. It is a fore-and-aft sail, setting with a boom and gaff. (See PLATE 2.)

SPAR. The general term for all masts, yards, booms, gaffs, &c.

SPELL. The common term for a portion of time given to any work.

To spell, is to relieve another at his work.

Spell ho! An exclamation used as an order or request to be relieved at work by another.

SPENCER. A fore-and-aft sail, set with a gaff and no boom, and hoisting from a small mast called a *spencer mast*, just abaft the fore and main masts. (See PLATES 2 and 4.)

SPILL. To shake the wind out of a sail by bracing it so that the wind may strike its leach and shiver it.

SPILLING LINE. A rope used for spilling a sail. Rove in bad weather.

SPINDLE. An iron pin upon which the capstan moves. Also, a piece of timber forming the diameter of a made mast. Also, any long pin or bar upon which anything revolves.

SPIRKETING. The planks from the water-ways to the port-sills.

SPLICE. (See PLATE 5 and page 27.) To join two ropes together by interweaving their strands.

SPOON-DRIFT. Water swept from the tops of the waves by the violence of the wind in a tempest, and driven along before it, covering the surface of the sea.

SPRAY. An occasional sprinkling dashed from the top of a wave by the wind, or by its striking an object.

SPRING. To crack or split a mast.

To spring a leak, is to begin to leak.

To spring a luff, is to force a vessel close to the wind, in sailing.

SPRING-STAY. A preventer-stay, to assist the regular one. (See STAY.)

SPRING TIDES. The highest and lowest course of tides, occurring every new and full moon.

SPRIT. A small boom or gaff, used with some sails in small boats. The lower end rests in a becket or snotter by the foot of the mast, and the other end spreads and raises the outer upper corner of the sail, crossing it diagonally. A sail so rigged in a boat is called a *sprit-sail*.

SPRIT-SAIL-YARD. (See PLATE 3.) A yard lashed across the bowsprit or knight-heads, and used to spread the guys of the jib and flying jib-boom. There was formerly a sail bent to it called a *sprit-sail*.

SPUNYARN. (See page 26.) A cord formed by twisting together two or three rope-yarns.

SPURLING LINE. A line communicating between the tiller and tell-tale.

SPURS. Pieces of timber fixed on the bilge-ways, their upper ends being bolted to the vessel's sides above the water. Also, curved pieces of timber, serving as half beams, to support the decks where whole beams cannot be placed.

SPUR-SHOES. Large pieces of timber that come abaft the pump-well.

SQUARE. Yards are *squared* when they are horizontal and at right angles with the keel. Squaring by the lifts makes them horizontal; and by the braces, makes them at right angles with the vessel's line. Also, the proper term for the length of yards. A vessel has square yards when her yards are unusually long. A sail is said to be very *square* on the head when it is long on the head.

To square a yard, in working ship, means to bring it in square by the braces.

SQUARE-SAIL. A temporary sail, set at the fore-mast of a schooner or sloop when going before the wind. (See SAIL.)

STABBER. A PRICKER.

STAFF. A pole or mast, used to hoist flags upon.

STANCHIONS. (See PLATE 3.) Upright posts of wood or iron, placed so as to support the beams of a vessel. Also, upright pieces of timber, placed at intervals along the sides of a vessel, to support the bulwarks and rail, and reaching down to the bends, by the side of the timbers, to which they are bolted. Also, any fixed, upright support; as to an awning, or for the man-ropes.

STAND BY! An order to be prepared.

STANDARD. An inverted knee, placed above the deck instead of beneath it; as, *bitt-standard*, &c.

STANDING. The *standing part* of a rope is that part which is fast, in opposition to the part that is hauled upon; or the main part, in opposition to the end.

The *standing part* of a tackle is that part which is made fast to the blocks and between that and the next sheave, in opposition to the hauling and leading parts.

STANDING RIGGING. (See page 25.) That part of a vessel's rigging which is made fast and not hauled upon. (See RUNNING.)

STARBOARD. The right side of a vessel, looking forward.

STARBOWLINES. The familiar term for the men in the starboard watch.

START. To *start a cask*, is to open it.

STAY. To tack a vessel, or put her about, so that the wind, from being on one side, is brought upon the other, round the vessel's head. (See TACK, WEAR.)

To stay a mast, is to incline it forward or aft, or to one side or the other, by the stays and backstays. Thus, a mast is said to be *stayed* too much forward or aft, or too much to port, &c.

STAYS. Large ropes, used to support masts, and leading from the head of some mast down to some other mast, or to some part of the vessel. Those which lead forward are called *fore-and-aft stays;* and those which lead down to the vessel's sides, *backstays*. (See BACKSTAYS.)

In stays, or *hove in stays*, the situation of a vessel when she is *staying*, or going about from one tack to the other.

STAYSAIL. A sail which hoists upon a stay.

STEADY! An order to keep the helm as it is.

STEERAGE. That part of the between decks which is just forward of the cabin.

STEEVE. A bowsprit *steeves* more or less, according as it is raised more or less from the horizontal.

The *steeve* is the angle it makes with the horizon. Also, a long, heavy spar, with a place to fit a block at one end, and used in stowing certain kinds of cargo, which need be driven in close.

STEM. (See PLATE 3.) A piece of timber reaching from the forward end of the keel, to which it is scarfed, up to the bowsprit, and to which the two sides of the vessel are united.

STEMSON. A piece of compass-timber, fixed on the after part of the apron inside. The lower end is scarfed into the keelson, and receives the scarf of the stem, through which it is bolted.

STEP. A block of wood secured to the keel, into which the heel of the mast is placed.

To step a mast, is to put it in its step.

STERN. (See PLATE 3.) The after end of a vessel. (See BY THE STERN.)

STERN-BOARD. The motion of a vessel when going stern foremost.

STERN-FRAME. The frame composed of the stern post transom and the fashion-pieces.

STERN-POST. (See PLATE 3.) The aftermost timber in a ship, reaching from the after end of the keel to the deck. The stem and stern-post are the two extremes of a vessel's frame.

Inner stern-post. A post on the inside, corresponding to the *stern-post*.

Stern-sheets. The after part of a boat, abaft the rowers, where the passengers sit.

Stiff. The quality of a vessel which enables it to carry a great deal of sail without lying over much on her side. The opposite to *crank*.

Stirrups. Ropes with thimbles at their ends, through which the foot-ropes are rove, and by which they are kept up toward the yards.

Stock. A beam of wood or a bar of iron, secured to the upper end of the shank of an anchor, at right angles with the arms. An iron stock usually goes with a key, and unships.

Stocks. The frame upon which a vessel is built.

Stools. Small channels for the dead-eyes of the backstays.

Stopper. A stout rope with a knot at one end, and sometimes a hook at the other, used for various purposes about decks; as, making fast a cable, so as to overhaul. (See Cat Stopper, Deck Stopper.)

Stopper Bolts. Ring-bolts to which the deck stoppers are secured.

Stop. A fastening of small stuff. Also, small projections on the outside of the cheeks of a lower mast, at the upper parts of the hounds.

Strand. (See page 26.) A number of rope-yarns twisted together. Three, four or nine strands twisted together form a rope.

A rope is *stranded* when one of its strands is parted or broken by chafing or by a strain.

A vessel is *stranded* when she is driven on shore.

Strap. A piece of rope spliced round a block to keep its parts well together. Some blocks have iron straps, in which case they are called *iron-bound*.

Streak, or **Strake.** A range of planks running fore-and-aft on a vessel's side.

Stream. The *stream anchor* is one used for warping, &c., and sometimes as a lighter anchor to moor by, with a hawser. It is smaller than the *bowers*, and larger than the *kedges*.

To stream a buoy, is to drop it into the water.

Stretchers. Pieces of wood placed across a boat's bottom, inside, for the oarsmen to press their feet against, in rowing. Also, cross pieces placed between a boat's sides to keep them apart when hoisted up and griped.

Strike. To lower a sail or colours.

Studdingsails. (See Plate 2.) Light sails set outside the square sails, on booms rigged out for that purpose. They are only carried with a fair wind and in moderate weather.

Sued, or **Sewed.** The condition of a ship when she is high and dry on shore. If the water leaves her two feet, she sues, or is sued, two feet.

Supporters. The knee-timbers under the cat-heads.

Surf. The breaking of the sea upon the shore.

Surge. A large, swelling wave.

To *surge* a rope or cable, is to slack it up suddenly where it renders round a pin, or round the windlass or capstan.

Surge ho! The notice given when a cable is to be *surged*.

Swab. A mop, formed of old rope, used for cleaning and drying decks.

Sweep. To drag the bottom for an anchor. Also, large oars, used in small vessels to force them ahead.

Swift. To bring two shrouds or stays close together by ropes.

Swifter. The forward shroud to a lower mast. Also, ropes used to confine the capstan bars to their places when shipped.

Swig. A term used by sailors for the mode of hauling off upon the bight of a rope when its lower end is fast.

Swivel. A long link of iron, used in chain cables, made so as to turn upon an axis and keep the turns out of a chain.

Sypphering. Lapping the edges of planks over each other for a bulkhead.

Tabling. Letting one beam-piece into another. (See Scarfing.) Also, the broad hem on the borders of sails, to which the bolt-rope is sewed.

Tack. To put a ship about, so that from having the wind on one side, you bring it round on the other by the way of her head. The opposite of *wearing*.

A vessel is on the *starboard tack*, or has her *starboard tacks on board*, when she has the wind on her starboard side.

The rope or tackle by which the weather clew of a course is hauled forward and down to the deck.

The *tack* of a fore-and-aft sail is the rope that keeps down the lower forward clew; and of a studdingsail, the lower outer clew. The tack of the lower studdingsail is called the *outhaul*. Also, that part of a sail to which the tack is attached.

TACKLE. (Pronounced *tay-cle*.) A purchase, formed by a rope rove through one or more blocks.

TAFFRAIL, or TAFFEREL. The rail round a ship's stern.

TAIL. A rope spliced into the end of a block and used for making it fast to rigging or spars. Such a block is called a *tail-block*.

A ship is said to *tail* up or down stream, when at anchor, according as her stern swings up or down with the tide; in opposition to *heading* one way or another, which is said of a vessel when under way.

TAIL-TACKLE. A watch-tackle. (See page 35.)

TAIL-ON! or TALLY-ON! An order given to take hold of a rope and pull.

TANK. An iron vessel placed in the hold to contain the vessel's water.

TAR. A liquid gum, taken from pine and fir-trees, and used for caulking, and to put upon yarns in rope-making, and upon standing rigging, to protect it from the weather.

TARPAULIN. A piece of canvas, covered with tar, used for covering hatches, boats, &c. Also, the name commonly given to a sailor's hat when made of tarred or painted cloth.

TAUT. Tight.

TAUNT. High or tall. Commonly applied to a vessel's masts.

All-a-taunt-o. Said of a vessel when she has all her light and tall masts and spars aloft.

TELL-TALE. A compass hanging from the beams of the cabin, by which the heading of a vessel may be known at any time. Also, an instrument connected with the barrel of the wheel, and traversing so that the officer may see the position of the tiller.

TEND. To watch a vessel at anchor at the turn of tides, and cast her by the helm, and some sail if necessary, so as to keep turns out of her cables.

TENON. The heel of a mast, made to fit into the step.

THICK-AND-THIN BLOCK. A block having one sheave larger than the other. Sometimes used for quarter-blocks.

THIMBLE. An iron ring, having its rim concave on the outside for a rope or strap to fit snugly round.

THOLE-PINS. Pins in the gunwale of a boat, between which an oar rests when pulling, instead of a rowlock.

THROAT. The inner end of a gaff, where it widens and hollows in to fit the mast. (See JAWS.) Also, the hollow part of a knee.

The *throat* brails, halyards, &c., are those that hoist or haul up the gaff or sail near the throat. Also, the angle where the arm of an anchor is joined to the shank.

THRUM. To stick short strands of yarn through a mat or piece of canvas, to make a rough surface.

THWARTS. The seats going across a boat, upon which the oarsmen sit.

THWARTSHIPS. (See ATHWARTSHIPS.)

TIDE. To *tide up or down* a river or harbour, is to work up or down with a fair tide and head wind or calm, coming to anchor when the tide turns.

TIDE-RODE. The situation of a vessel, at anchor, when she swings by the force of the tide. In opposition to *wind-rode*.

TIER. A range of casks. Also, the range of the fakes of a cable or hawser.

The *cable tier* is the place in a hold or between decks where the cables are stowed.

TILLER. A bar of wood or iron, put into the head of the rudder, by which the rudder is moved.

TILLER-ROPES. Ropes leading from the tiller-head round the barrel of the wheel, by which a vessel is steered.

TIMBER. A general term for all large pieces of wood used in ship-building. Also, more particularly, long pieces of wood in a curved form, bending outward, and running from the keel up, on each side, forming the *ribs* of a vessel. The keel, stem, stern-posts and timbers form a vessel's outer frame. (See PLATE 3.)

TIMBER-HEADS. (See PLATE 3.) The ends of the timbers that come above the decks, Used for belaying hawsers and large ropes.

TIMENOGUY. A rope carried taut between different parts of the vessel, to prevent the sheet or tack of a course from getting foul, in working ship.

TOGGLE. A pin placed through the bight or eye of a rope, block-strap, or bolt, to keep it in its place, or to put the bight or eye of another rope upon, and thus to secure them both together.

TOMPION. A bung or plug placed in the mouth of a cannon.

TOP. A platform, placed over the head of a lowermast, resting on the trestle-trees, to spread the rigging, and for the convenience of men aloft. (See PLATE 1.)

To *top* up a yard or boom, is to raise up one end of it by hoisting on the lift.

TOP-BLOCK. A large iron-bound block, hooked into a bolt under the lower cap, and used for the top-rope to reeve through in sending up and down topmasts.

TOP-LIGHT. A signal lantern carried in the top.

TOP-LINING. A lining on the afterpart of sails, to prevent them from chafing against the top-rim.

TOPMAST. (See PLATE 1.) The second mast above the deck. Next above the lower mast.

TOPGALLANTMAST. (See PLATE 1.) The third mast above the deck.

TOP-ROPE. The rope used for sending topmasts up and down.

TOPSAIL. (See PLATE 2.) The second sail above the deck.

TOPGALLANTSAIL. (See PLATE 2.) The third sail above the deck.

TOPPING-LIFT. (See PLATE 1.) A lift used for topping up the end of a boom.

TOP TIMBERS. The highest timbers on a vessel's side, being above the futtocks. (See PLATE 3.)

TOSS. To throw an oar out of the rowlock, and raise it perpendicularly on its end, and lay it down in the boat, with its blade forward.

TOUCH. A sail is said to *touch*, when the wind strikes the leach so as to shake it a little.

Luff and touch her! The order to bring the vessel up and see how near she will go to the wind.

TOW. To draw a vessel along by means of a rope.

TRAIN-TACKLE. The tackle used for running guns in and out.

TRANSOMS. (See PLATE 3.) Pieces of timber going across the stern-post, to which they are bolted.

TRANSOM-KNEES. Knees bolted to the transoms and after timbers.

TRAVELLER. An iron ring, fitted so as to slip up and down a rope.

TREENAILS, or TRUNNELS. Long wooden pins, used for nailing a plank to a timber.

TREND. The lower end of the shank of an anchor, being the same distance on the shank from the throat that the arm measures from the throat to the bill.

TRESTLE-TREES. Two strong pieces of timber, placed horizontally and fore-and-aft on opposite sides of a mast-head, to support the cross-trees and top, and for the fid of the mast above to rest upon.

TRIATIC STAY. A rope secured at each end to the heads of the fore and main masts, with thimbles spliced into its bight to hook the stay tackles to.

TRICE. To haul up by means of a rope.

TRICK. The time allotted to a man to stand at the helm.

TRIM. The condition of a vessel, with reference to her cargo and ballast. A vessel is *trimmed* by the head or by the stern.

In ballast-trim, is when she has only ballast on board.
Also, to arrange the sails by the braces with reference to the wind.

TRIP. To raise an anchor clear of the bottom.

TRIPPING LINE. A line used for tripping a topgallant or royal yard in sending it down.

TRUCK. A circular piece of wood, placed at the head of the highest mast on a ship. It has small holes or sheaves in it for signal halyards to be rove through. Also, the wheel of a gun-carriage.

TRUNNIONS. The arms on each side of a cannon by which it rests upon the carriage, and on which, as an axis, it is elevated or depressed.

TRUSS. The rope by which the centre of a lower yard is kept in toward the mast.

TRYSAIL. A fore-and-aft-sail, set with a boom and gaff, and hoisting on a small mast abaft the lowermast, called a *trysail-mast*. This name is generally confined to the sail so carried at the mainmast of a full-rigged brig; those carried at the foremast and at the mainmast of a ship or bark being called *spencers*, and those that are at the mizzenmast of a ship or bark, *spankers*.

TUMBLING HOME. Said of a ship's sides when they fall in above the bends. The opposite of *wall-sided*.

TURN. Passing a rope once or twice round a pin or kevel, to keep it fast. Also, two crosses in a cable.

To turn in or *turn out*, nautical terms for going to rest in a berth or hammock, and getting up from them.

Turn up! The order given to send the men up from between decks.

TYE. A rope connected with a yard, to the other end of which a tackle is attached for hoisting.

UNBEND. To cast off or untie. (See BEND.)

UNION. The upper inner corner of an ensign. The rest of the flag is called the *fly*. The *union* of the U. S. ensign is a blue field with white stars, and the *fly* is composed of alternate white and red stripes.

Union-down. The situation of a flag when it is hoisted upside down, bringing the union down instead of up. Used as a signal of distress.

Union jack. A small flag, containing only the union, without the fly, usually hoisted at the bowsprit-cap.

UNMOOR. To heave up one anchor so that the vessel may ride at a single anchor. (See MOOR.)

UNSHIP. (See SHIP.)

UVROU. (See EUVROU.)

VANE. A fly worn at the masthead, made of feathers or buntline, traversing on a spindle, to shew the direction of the wind. (See DOG VANE.)

VANG. (See PLATE I.) A rope leading from the peak of the gaff of a fore-and-aft sail to the rail on each side, and used for steadying the gaff.

'VAST. (See AVAST.)

VEER. Said of the wind when it changes. Also, to slack a cable and let it run out. (See PAY.)

To veer and haul, is to haul and slack alternately on a rope, as in warping, until the vessel or boat gets headway.

VIOL, or VOYAL. A larger messenger sometimes used in weighing an anchor by a capstan. Also, the block through which the messenger passes.

WAIST. That part of the upper deck between the quarter-deck and forecastle.

Waisters. Green hands, or broken-down seamen, placed in the waist of a man-of-war.

WAKE. The track or path a ship leaves behind her in the water.

WALES. Strong planks in a vessel's sides, running her whole length fore-and-aft.

WALL. A knot put on the end of a rope. (See PLATE 5 and page 28.)

Wall-sided. A vessel is *wall-sided* when her sides run up perpendicularly from the bends. In opposition to *tumbling home* or *flaring out*.

Ward-room. The room in a vessel of war in which the commissioned officers live.

Ware, or Wear. To turn a vessel round, so that, from having the wind on one side, you bring it upon the other, carrying her stern round by the wind. In *tacking*, the same result is produced by carrying a vessel's head round by the wind.

Warp. To move a vessel from one place to another by means of a rope made fast to some fixed object, or to a kedge.

A *warp* is a rope used for warping. If the warp is bent to a kedge which is let go, and the vessel is hove ahead by the capstan or windlass, it would be called *kedging*.

Wash-boards. Light pieces of board placed above the gunwale of a boat.

Watch. (See page 128). A division of time on board ship. There are seven watches in a day, reckoning from twelve M. round through the twenty-four hours, five of them being of four hours each, and the two others, called *dog watches*, of two hours each, viz., from four to six, and from six to eight, P.M. (See Dog Watch.) Also, a certain portion of a ship's company, appointed to stand a given length of time. In the merchant service all hands are divided into two watches, larboard and starboard, with a mate to command each.

A *buoy* is said to *watch* when it floats on the surface.

Watch-and-watch. The arrangements by which the watches are alternated every other four hours. In distinction from keeping all hands during one or more watches. (See page 128.)

Anchor watch, a small watch of one or two men, kept while in port.

Watch ho! Watch! The cry of the man that heaves the deep-sea lead.

Watch-tackle. (See page 35.) A small luff purchase with a short fall, the double block having a tail to it, and the single one a hook. Used for various purposes about decks.

Water Sail. A *save-all*, set under the swinging-boom.

Water-ways. Long pieces of timber, running fore-and-aft on both sides, connecting the deck with the vessel's sides. The *scuppers* are made through them to let the water off. (See Plate 3.)

Wear. (See Ware.)

Weather. In the direction from which the wind blows. (See Windward, Lee.)

A ship carries a *weather helm* when she tends to come up into the wind requiring you to put the helm up.

Weather gage. A vessel has the *weather-gage* of another when she is to windward of her.

A *weatherly ship*, is one that works well to windward, making but little leeway.

Weather-bitt. To take an additional turn with a cable round the windlass-end.

Weather-roll. The roll which a ship makes to windward.

Weigh. To lift up; as, to weigh an anchor or a mast.

Wheel. The instrument by which a ship is steered; being a barrel (round which the tiller-ropes go), and a wheel with spokes.

Whip. (See page 34.) A purchase formed by a rope rove through a single block.

To whip, is to hoist by a whip. Also, to secure the end of a rope from fagging by a seizing of twine.

Whip-upon-whip. One whip applied to the fall of another.

Winch. A purchase formed by a horizontal spindle or shaft with a wheel or crank at the end. A small one with a wheel is used for making ropes or spunyarn.

Windlass. The machine used in merchant vessels to weigh the anchor by.

Wind-rode. The situation of a vessel at anchor when she swings and rides by the force of the wind, instead of the tide or current. (See Tide-rode.)

WING. That part of the hold or between-decks which is next the side.
WINGERS. Casks stowed in the wings of a vessel.
WING-AND-WING. The situation of a fore-and-aft vessel when she is going dead before the wind, with her foresail hauled over on one side and her mainsail on the other.
WITHE, or WYTHE. An iron instrument fitted on the end of a boom or mast, with a ring to it, through which another boom or mast is rigged out and secured.
WOOLD. To wind a piece of rope round a spar, or other thing.
WORK UP. To draw the yarns from old rigging and make them into spunyarn, foxes, sennit, &c. Also, a phrase for keeping a crew constantly at work upon needless matters, and in all weathers, and beyond their usual hours, for punishment.
WORM. (See page 26.) To fill up between the lays of a rope with small stuff wound round spirally. Stuff so wound round is called *worming*.
WRING. To bend or strain a mast by setting the rigging up too taut.
WRING-BOLTS. Bolts that secure the planks to the timbers.
WRING-STAVES. Strong pieces of plank used with the wring-bolts.

YACHT. (Pronounced *yot*.) A vessel of pleasure or state.
YARD. (See PLATE 1.) A long piece of timber, tapering slightly toward the ends, and hung by the centre to a mast, to spread the square sails upon.
YARD-ARM. The extremities of a yard.
YARD-ARM AND YARD-ARM. The situation of two vessels, lying alongside one another, so near that their yard-arms cross or touch.
YARN. (See ROPE-YARN.)
YAW. The motion of a vessel when she goes off from her course.
YEOMAN. A man employed in a vessel of war to take charge of a storeroom; as, boatswain's yeoman, the man that has charge of the stores, of rigging, &c.
YOKE. A piece of wood placed across the head of a boat's rudder, with a rope attached to each end, by which the boat is steered.

PART II.

CHAPTER I.

THE MASTER.

Beginning of the voyage—Shipping the crew—Outfit—Provisions—Watches—Navigation—Log-book—Observations—Working ship—Day's work—Discipline.

In the third part of this work, it will be seen that the shipmaster is a person to whom, both by the general marine law of all commercial nations, and by the special statutes of the United States, great powers are confided, and upon whom heavy responsibilities rest. The shipmaster will find there what are his legal rights, duties, and remedies as to owner, ship, and crew, and the various requirements as to the papers with which he is to furnish his ship, and the observances of revenue and other regulations.

It is proposed to give here, rather more, perhaps, for the information of others than of the master himself, the ordinary and everyday duties of his office, and the customs which long usage has made almost as binding as laws.

There is a great difference in different ports, and among the various owners, as to the part the master is to take in supplying and manning the vessel. In many cases, the owner puts on board all the stores for the ship's use and for the crew, and gives the master particular directions, sometimes in writing, as to the manner in which he is to dispense them. These directions are more or less liberal, according to the character of the owner; and, in some cases, the dispensing of the stores is left to the master's discretion. In other instances, the master makes out an inventory of all the stores he thinks it expedient to have put on board, and they are accordingly supplied by the owner's order.

In the manner of shipping the crew, there is as great a difference as in that of providing the stores. Usually, the whole thing is left

to shipping-masters, who are paid so much a head for each of the crew, and are responsible for their appearance on board at the time of sailing. When this plan is adopted, neither the master nor owner, except by accident, knows anything of the crew before the vessel goes to sea. The shipping-master opens the articles at his office, procures the men, sees that they sign in due form, pays them their advance, takes care that they, or others in their place, are on board at the time of sailing, and sends in a bill for the whole to the owner. In other cases, the master selects his crew, and occasionally the owner does it, if he has been at sea himself and understands seamen; though a shipping-master is still employed, to see them on board, and for other purposes. In the ordinary course of short voyages, where crews are shipped frequently, and there is not much motive for making a selection, the procuring a crew may be left entirely to the agency of a faithful shipping-master; but upon long voyages, the comfort and success of which may depend much upon the character of a crew, the master or owner should interest himself to select able-bodied and respectable men, to explain to them the nature and length of the voyage they are going upon, what clothing they will want, and the work that will be required of them, and should see that they have proper and sufficient accommodations and provisions for their comfort. The master or owner should also, though this duty is often neglected, go to the forecastle and see that it is cleaned out, whitewashed, or painted, put in a proper habitable condition, and furnished with every reasonable convenience. It would seem best that the master should have something to do with the selection of the provisions for his men, as he will usually be more interested in securing their good-will and comfort than the owner would be.

By the master or owner's thus interesting himself for the crew, a great deal of misunderstanding, complaint, and ill-will may be avoided, and the beginning, at least, of the voyage be made under good auspices.

Unless the master is also supercargo, his duties, before sailing, are mostly confined to looking after the outfit of the vessel, and seeing that she is in sea order.

Everything being in readiness, the customhouse and other regulations complied with, and the crew on board, the vessel is put under the charge of the pilot to be carried out clear of the land. While the pilot is on board, the master has little else to do than to see that everything is in order, and that the commands of the pilot are executed. As soon as the pilot leaves the ship, the entire control and responsibility is thrown upon the master. When the vessel is well clear of the land, and things are put into some order,

it is usual for the master to call all hands aft, and say something to them about the voyage upon which they have entered. After this, the crew are divided into watches. The watches are the divisions of the crew into two equal portions. The periods of time occupied by each part of the crew, while on duty, are also called watches.

There are two watches,—the larboard, commanded by the chief mate, and the starboard, by the second mate. The master himself stands no watch, but comes and goes at all times, as he chooses. The starboard is sometimes called the captain's watch, probably from the fact that in the early days of the service, when vessels were smaller, there was usually but one mate, and the master stood his own watch; and now, in vessels which have no second mate, the master keeps the starboard watch. In dividing into watches, the master usually allows the officers to choose the men, one by one, alternately; but sometimes makes the division himself, upon consulting with his officers. The men are divided as equally as possible, with reference to their qualities as able seamen, ordinary seamen, or boys (as all green hands are called, whatever their age may be); but if the number is unequal, the larboard watch has the odd one, since the chief mate does not go aloft and do other duty in his watch, as the second mate does in his. The cook always musters with the larboard watch, and the steward with the starboard. If there is a carpenter, and the larboard watch is the largest, he generally goes aloft with the starboard watch; otherwise, with the larboard.

As soon as the division is made, if the day's work is over, one watch is set, and the other is sent below. Among the numerous customs of the ocean, which can hardly be accounted for, it is one that on the first night of the outward passage the starboard watch should take the first four hours on deck, and on the first night of the homeward passage the larboard should do the same. The sailors explain this by the old phrase, that the master takes the ship out and the mate takes her home.

The master takes the bearing and distance of the last point of departure upon the land, and from that point the ship's reckoning begins, and is regularly kept in the log-book. The chief mate keeps the log-book, but the master examines and corrects the reckoning every day. The master also attends to the chronometer, and takes all the observations, with the assistance of his officers, if necessary. Every day, a few minutes before noon, if there is any prospect of being able to get the sun, the master comes upon deck with his quadrant or sextant, and the chief mate also usually takes his. The second mate does not, except upon a Sunday, or when there is no work going forward. As soon as the sun crosses the meridian,

eight bells are struck, and a new sea-day begins. The reckoning is then corrected by the observation, under the master's superintendence.

The master also takes the lunar observations, usually with the assistance of both his officers; in which case, the master takes the angle of the moon with the star or sun, the chief mate takes the altitude of the sun or star, and the second mate the altitude of the moon.

In regulating the hours of duty and sleep, the meal times, the food, &c., the master has absolute power; yet the customs are very nearly the same in all vessels. The hour of breakfast is seven bells in the morning (half after seven), dinner at noon, and supper whenever the day's work is over. If the voyage is a long one, the crew are usually put upon an allowance of bread, beef, and water. The dispensing of the stores and regulating of the allowance lies, of course, with the master, though the duty of opening the casks, weighing, measuring, &c., falls upon the second mate. The chief mate enters in the log-book every barrel or cask of provisions that is broached. The steward takes charge of all the provisions for the use of the cabin, and keeps them in the pantry, over which he has the direct control. The average of allowance, in merchant vessels, is six pounds of bread a week, and three quarts of water, and one pound and a half of beef, or one and a quarter of pork, a day, to each man.

The entire control of the navigation and working of the ship lies with the master. He gives the course and general directions to the officer of the watch, who enters upon a slate, at the end of the watch, the course made, and the number of knots, together with any other observations. The officer of the watch is at liberty to trim the yards, to make alterations in the upper sails, to take in and set royals, topgallant sails, &c.; but no important alteration can be made, as, for instance, reefing a topsail, without the special order of the master, who, in such cases, always comes upon deck and takes command in person. When on deck, the weather side of the quarter-deck belongs to him, and as soon as he appears, the officer of the watch will always leave it, and go over to leeward, or forward into the waist. If the alteration to be made is slight, the master usually tells the officer to take in or set such a sail, and leaves to him the particular ordering as to the braces, sheets, &c., and the seeing all things put in place. The principal manœuvres of the vessel, as tacking, wearing, reefing topsails, getting under way, and coming to anchor, require all hands. In these cases, the master takes command and gives his orders in person, standing upon the quarter-deck. The chief mate superintends the forward part of the

vessel, under the master, and the second mate assists in the waist. The master never goes aloft, nor does any work with his hands, unless for his own pleasure. If the officer of the watch thinks it necessary to reef the topsails, he calls the master, who, upon coming on deck, takes command, and, if he thinks proper, orders all hands to be called. The crew, officers and all, then take their stations, and await the orders of the master, who works the ship in person, giving all the commands, even the most minute, and looks out for trimming the yards and laying the ship for reefing. The chief mate commands upon the forecastle, under the master, and does not go aloft. The second mate goes aloft with the crew.

In tacking and wearing, the master gives all the orders, as to trimming the yards, &c., though the chief mate is expected to look out for the head yards. So, in getting under way, and in coming to anchor, the master takes the entire personal control of everything, the officers acting under him in their several stations.

In the ordinary day's work, however, which is carried on in a vessel, the state of things is somewhat different. This the master does not superintend personally; but gives general instructions to the chief mate, whose duty it is to see to their execution. To understand this distinction, the reader will bear in mind that there are two great divisions of duty and labour on shipboard. One, the *working and navigating of the vessel:* that is, the keeping and ascertaining the ship's position, and directing her course, the making and taking in sail, trimming the sails to the wind, and the various nautical manœuvres and evolutions of a vessel. The other branch is, the work done upon the hull and rigging, to keep it in order, such as the making and fitting of new rigging, repairing of old, &c.; all which, together with making of small stuffs to be used on board, constitute the *day's work and jobs* of the crew. As to the latter, the master usually converses confidentially with the chief mate upon the state of the vessel and rigging, and tells him, more or less particularly, what he wishes to have done. It then becomes the duty of this officer to see the thing accomplished. If, for instance, the master tells the chief mate to stay the topmasts more forward, the chief mate goes upon the forecastle, sets the men to work, one upon one thing and another upon another, sees that the stays and backstays are come up with, has tackles got upon the rigging, sights the mast, &c. If the master sees anything which he disapproves of, and has any preferences in the modes of doing the work, he should call the officer aft and speak to him; and if, instead of this, he were to go forward and give orders to the men, it would be considered an insult to the officer. So with any other work doing upon the ship or rigging, as rattling down, turning in and setting up rigging,

bending and unbending sails, and all the knotting, splicing, serving, &c., and the making of small stuffs, which constitute the day's work and *jobs* of a vessel. When the chief officer is a competent man, the master does not trouble himself with the details of any of these things; and, indeed, if he were to do so to a great extent, it would probably lead to difficulty.

Where there are passengers, as in regular line of packet ships (or, as they are familiarly called, *liners*) between New York and Liverpool or Havre, for instance, the master has even less to do with the day's work; since the navigation and working of the ship, with proper attention to his passengers, is as much as can reasonably be required of him.

The master has the entire control of the cabin. The mates usually live in a state room by themselves, or, if they live in the cabin, they yet feel that the master is the head of the house, and are unwilling to interfere with his hours and occupations. The chief mate dines with the master, and the second mate looks out for the ship while they are below, and dines at the second table. In the *liners*, however, the mates usually dine together; the master looks out for the ship while they are at dinner, and dines with his passengers at a later hour.

As the master stands no watch, he comes and goes as he pleases, and takes his own hours for rest. In fine weather, he is not necessarily much on deck, but should be ready at all times, especially in bad weather, to be up at a moment's notice.

Everything of importance that occurs, as the seeing a sail or land, or the like, must be immediately reported to the master. And in heaving-to for speaking, the master takes the entire charge of working the vessel, and speaks the other sail in person.

As will be found in the third part of this book, the master has the entire control of the discipline of the ship, and no subordinate officer has authority to punish a seaman, or to use force, without the master's order, except in cases of necessity not admitting of delay. He has also the complete direction of the internal arrangements and economy of the vessel, and upon his character, and upon the course of conduct he pursues, depend in a great measure the character of the ship and the conduct of both officers and men. He has a power and influence, both direct and indirect, which may be the means of much good or much evil. If he is profane, passionate, tyrannical, indecent, or intemperate, more or less of the same qualities will spread themselves or break out among officers and men, which, perhaps would have been checked, if not in some degree removed, had the head of the ship been a man of high personal character. He may make his ship almost anything he chooses, and may render

the lives and duties of his officers and men pleasant and profitable to them, or may introduce disagreements, discontent, tyranny, resistance, and, in fact, make the situation of all on board as uncomfortable as that in which any human beings can well be placed. Every master of a vessel who will lay this to heart, and consider his great responsibility, may not only be a benefactor to the numbers whom the course of many years will bring under his command, but may render a service to the whole class, and do much to raise the character of the calling.

CHAPTER II.

THE CHIEF MATE.

Care of rigging and ship's furniture—Day's work—Working ship—Coming to anchor—Getting under way—Reefing—Furling—Duties in port—Account of cargo—Stowage—Station—Log-book—Navigation.

THE chief mate, or, as he is familiarly called on board ship, *the mate*, is the active superintending officer. In the previous chapter, upon the duties of the master, it will be seen that, in all matters relating to the care of and work done upon the ship and rigging, the master gives general orders to the mate, who attends personally to their execution in detail. Indeed, in the *day's work* on board ship, the chief mate is the only officer who appears in command. The second mate works like a common seaman, and the men seldom know what is to be done until they receive their orders in detail from the chief mate. It is his duty to carry on the work, to find every man something to do, and to see that it is done. He appoints the second mate his work, as well as the common seamen theirs; and if the master is dissatisfied with anything, or wishes a change, he should speak to the chief mate, and let him make the change, and not interfere with the men individually. It is also the duty of this officer to examine all parts of the rigging, report anything of importance to the master and take his orders, or, if it be a small and common matter, he will have the repairs or changes made at his own pleasure, as a thing of course. He must also see that there is a supply of small stuffs for the work, and have them made up when necessary, and also that there are instruments ready for every kind of labour, or for any emergency. In bad weather, he must have spare rope, blocks, tackles, sennit, earings, &c., at hand; or rather,

see that they are provided, the more immediate care of these things, when provided, belonging to the second mate.

From this description of a chief mate's duty, it will be seen that he ought always to be not only a vigilant and active man, but also well acquainted with all kinds of seaman's work, and a good judge of rigging.

In the working of the ship, when all hands are called and the master is on deck, the chief mate's place is on the forecastle, where, under the general direction of the master, who never need leave the quarter-deck, he commands the forward part of the vessel, and is the organ of communication with the men aloft. In getting under way and coming to anchor, it is his duty to attend to the ground tackle, and see everything ready forward. The master, for instance, tells him to have the ship ready for getting under way, and to heave short on the cable. He then goes forward, orders all hands to be called, sees everything secured about decks, tackles got up and boats hoisted in and lashed, fish and cat tackles, pennant, davit, &c., and spare hawsers and rope, in readiness, orders the men to the windlass (the second mate taking a handspike with the rest), and stationing himself between the knightheads, looks out for the cable, ordering and encouraging the men. When the cable is hove short, he informs the master, and, at the word from him, orders the men aloft to loose the sails, and gives particular directions to them when aloft, as to the sails, gaskets, overhauling rigging, &c. The sails being loosed, he awaits the order from the master, which is addressed to him rather than to the men, and has the windlass manned and the anchor hove up, giving notice to the master as soon as it is a-weigh. When the vessel is under way, the master begins to take more immediate control, ordering the yards to be braced and filled, sail to be set, and the like. The chief mate also sees to the catting and fishing of the anchors, to having the decks cleared up and everything secured.

In coming to anchor, very nearly the same duty falls upon the chief officer. He must see the anchors and cables ready for letting go, the master ordering how much chain is to be overhauled. He must look out that the boats are ready for lowering, the rigging clear for letting go, hauling and clewing, and that spare hawsers, kedges, warps, &c., are at hand. If anything goes wrong forward, he alone is looked to for an explanation. As the vessel draws in toward her anchoring ground, the master gives all the orders as to trimming the yards and taking in sail; and at all times, when on deck, has the entire charge of the man at the helm, it being the mate's duty only to see that a good seaman is there, and that the helm is relieved. As to the sails, the master will, for instance,

order—"Clew up the fore and main topsails!" The chief mate then gives the particular orders as to lowering and letting go the halyards, clewing down and up, overhauling rigging, &c. If both topsails were taken in at once, the second mate would attend to the main, unless the master should choose to look out for it himself. All being ready for letting go, the master gives the order—"Let go the anchor!" and the chief mate sees that it is done, has the chain payed out, reports how much is out, sees that the buoys *watch*, and the like. In furling the sails, the whole superintendence comes upon the mate, as the master would probably only tell him to have them furled. He has the rigging hauled taut, sends the men aloft, and, remaining on deck and forward, he gives his orders to them while on the yards, as to the manner of furling, and has the ropes hauled taut or let go on deck, as may be necessary.

These instances may serve to shew the distinctions between the duties of master and mate in the principal evolutions of a vessel. While in port, the chief mate has much more the control of the vessel than when at sea. As there is no navigating or working of the vessel to be done, the master has little to engage him, except transactions with merchants and others on shore, and the necessary general directions to the mate, as to the care of the ship. Beside the work upon the ship and rigging while in port, the chief mate has the charge of receiving, discharging, stowing and breaking out the cargo. In this he has the entire control, under the general directions of the master. It is his duty to keep an account of all the cargo, as it goes in and comes out of the vessel, and, as he generally gives receipts, he is bound to great care and accuracy. When cargo is coming in and going out, the chief mate stands in the gangway, to keep an account, and the second mate is down in the hold with some of the crew, breaking out, or stowing. The stowage, however, should still be somewhat under the chief mate's directions. While the master is on shore, the chief mate is necessarily commander of the ship, for the time, and though the law will extend his power proportionably for cases of necessity, yet, except in instances which will not admit of delay, he must not attempt to exercise any unusual powers, but should refer everything to the master's decision. It will be seen, by the laws, that the mate has no right to punish a man during the master's absence, unless it be a case in which delay would lead to serious consequences.

While in port, the chief mate stands no watch at night, but he should always be the first to be called in the morning, and should be up early and order the calling of all hands. In cleaning the ship, as washing down decks, &c., which is done the first thing in the morning, each mate, while at sea, takes charge of it in

his watch, in turn, as one or the other has the morning watch; but in port, the second mate oversees the washing down of the decks under the chief mate's general orders.

While at sea, in tacking, wearing, reefing topsails, &c., and in every kind of "all hands' work," when the master is on deck, the chief mate's place, as I have said, is forward. To give a further notion of the manner of dividing the command, I will describe the evolution of tacking ship. The master finds that the ship will not lay her course, and tells the chief mate to "see all clear for stays," or "ready about." Upon this, the chief mate goes forward, sends all hands to their stations, and sees everything clear and ready on the forecastle. The master asks, "All ready forward?" and being answered, "Ay, ay, sir!" motions the man at the helm to put the wheel down, and calls out, "Helm 's a-lee!" The mate, answering immediately, "Helm 's a-lee," to let the master know he is heard and understood, sees that the head sheets are let go. At "Raise tacks and sheets!" from the master, the mate, and the men with him, let go the fore tack, while he looks after the over-hauling of the other tack and sheet. He also sees to letting go the bowlines for "Let go and haul," and to getting down the head sheets when the ship is about, and trims the head yards, calling out to the men at the braces the usual orders, "Well the fore yard!" "Topsail yard, a small pull!" "Topgallant yard, well!" &c. The master usually trims the after yards.

In reefing topsails, the chief mate should not go aloft, but should keep his place forward, and look out for the men on the yards. I am aware that it is the custom in some classes of vessels, for the chief mate to take the weather earing of a course, especially if a topsail or the other course were reefing at the same time; yet this practice has never generally prevailed, and is now going out of date. I think I may say it is the opinion of all, masters, officers, and men, that it is better for the chief mate to remain on deck. He is also the organ of communication between the yards and the deck, and can look after the reefing to more advantage than the master can upon the quarter-deck, where he must stay to watch the helm and sails.

The chief mate is not required to work with his hands, like the second mate and the seamen. He will, of course, let go and belay ropes, and occasionally pull and haul with the men when working ship; but if there is much work to be done, his time and attention are sufficiently taken up with superintending and giving orders.

As to his duties as a watch-officer, it will be necessary to repeat the explanations partly given in the chapter upon the master's duties. The crew are divided equally into two watches, the larboard

and starboard; the larboard commanded by the chief mate, and the starboard by the second mate. These watches divide the day between them, being on and off duty every four hours. This is the theory of the time, but in fact, in nearly all merchant vessels, all hands are kept on deck and at work throughout the afternoon, from one o'clock until sundown; and sometimes, if there is a great deal to be done, as immediately before making port, or after an accident, all hands may be kept throughout the day. This is, however, justly considered hard usage, if long continued, since it gives the men but little time for sleep, and none for reading, or taking care of their clothes. Although all hands may be on deck and at work during a day or a half day, yet the division of time is still kept up. For instance, if it is the mate's watch from 8 A.M. to 12; although all hands should be up from 12 to 5 or 6, yet from 12 to 4 the starboard watch would be considered as "the watch on deck," and the larboard again after 4; and so on; and during those hours the wheel will always be taken by men belonging to the watch on deck, and if any particular duty is ordered to be done by "the watch," that watch which has a man at the helm, and which would have been the only one on deck had not all hands been kept, would do the duty. But though this division is kept up as to the crew and the helmsman, it is not so as to the officers; for when all hands are on deck, the chief mate is always the officer in command, to whichever watch the hour may properly belong. He accordingly looks after the ship, takes in and makes sail, and trims the yards, when all hands are on deck at work, as much in the hours of one watch as in those of the other, and he generally calls upon the men of either watch indifferently to pull and haul. But if only the starboard watch is on deck, though the chief mate should be on deck also, yet he will not interfere with the duties of that watch, but would leave the command of the vessel, and the weather side of the quarter-deck, to the second mate. Of course, whenever the master comes on deck, as I have said, in whatever watch it may be, or if all hands are up, he takes the weather side of the quarter-deck, and is considered as having charge of the ship; and the officer of the watch then gives no order with reference to the helm, trimming the yards, making sail, or the like, without a direction from the master.

It will be necessary to make some explanations as to the stations of the chief and second mate. I have said, that when all hands are called, the chief mate's place is the forecastle, and the second mate's amidships, or at the braces on the quarter-deck. This is only in working ship with all hands; that is, in tacking, wearing, reefing, coming to anchor, getting under way, &c. Whenever the work is done, and the necessity for the officers' presence at these parts of

the vessel ceases, they return to their proper places on the quarter-deck. In a man-of-war there is always a lieutenant of the watch on the weather side of the quarter-deck, whatever work may be going forward, except in the single case of all hands being called to work ship; but it is not so in the merchant service. When the ordinary day's work is going forward, the mates must be about the decks or aloft, like the petty officers of a man-of-war; and it is only while no work is going forward, as in bad weather, on Sundays, or at night, that the officer of the watch keeps the quarter-deck. At these times he does so, and, if the master is not on deck, does not leave it, except for a short time, and for some necessary duty forward.

It will be seen in the third part of this book, that the law looks upon the chief mate as standing in a different relation to the master from that of the second mate or the men. He is considered a confidential person, to whom the owners, shippers, and insurers look, in some measure, for special duties and qualifications. The master, therefore, cannot remove him from office, except under very peculiar circumstances, and then must be able to prove a justifiable cause. One of these duties which the law throws upon him, is keeping the log-book. This is a very important trust, as the log-book is the depository of the evidence of everything that may occur during the voyage; and the position of the ship, the sail she was under, the wind, &c., at any one moment, may become matters of great consequence to all concerned. So it is with reference to anything that may occur between the master or officers and the crew. As to the manner of keeping the log, it is the custom for each officer at the end of his watch to enter upon the log-slate, which usually lies on the cabin table, the courses, distances, wind, and weather during his watch, and anything worthy of note that may have occurred. Once in twenty-four hours the mate copies from this slate into the log-book; the master, however, first seeing the slate, examining it, and making any corrections or observations he may choose. This practice of copying from the slate, which is first submitted to the master, has led, in too many instances, to the mate's becoming the mere clerk of the master, to enter on the log-book whatever the latter may dictate. This is wrong. It is very proper that the master should examine the slate, and suggest alterations as to the ship's reckoning, &c., if necessary; but it is important to all concerned, both to the owners, shippers, and insurers, on shore, and the crew of the vessel, that the independence of the mate, as the journalist of the voyage, should be preserved. The master, from the power of his office, can at all times make the situation of a mate who has displeased him extremely disagreeable, and from this cause has

great indirect influence over him; the law and the custom should, therefore, be strictly adhered to which rightly make the chief officer, in this respect, in a manner the umpire between the master and the crew, as well as between all on board and the parties interested on shore.

The law also makes the chief mate the successor to the master, in case the latter should die, or be unable to perform the duties of his office; and this without any action on the part of the crew. It is always important, therefore, that, to the practical seamanship and activity necessary for the discharge of the proper duties of his office, the mate should add a sufficient knowledge of navigation to be able to carry the ship on her voyage in case anything should happen to the master. Indeed, it has been doubted whether a vessel of the largest class, upon a long voyage, would be seaworthy with no navigator on board but the master.

Both the chief and second mates are always addressed by their surnames, with *Mr* prefixed, and are answered with the addition of *Sir*. This is a requirement of ship's duty, and an intentional omission of it is an offence against the rules and understanding of the service.

CHAPTER III.

SECOND AND THIRD MATES.

SECOND MATE.—Navigation—Station—Watch Duties—Day's Work—Working ship—Reefing—Furling—Duties aloft—Care of ship's furniture—Stores—Duties in port.
THIRD MATE.—Working ship—Day's work—Duties aloft; in port—Boating—Stores.

THE duties of the second mate are, to command the starboard watch when the master is not on deck, and to lead the crew in their work. It is not necessary that he should be a navigator, or even be able to keep a journal, though he should know enough of navigation to keep the courses and distances during his watch, and to report them correctly on the slate. There are also many advantages in his being acquainted with navigation and able to keep the log, as, in case of the chief mate's meeting with any accident, or being removed from office. The second mate, however, does not, by law, necessarily succeed to the office of chief mate, as the chief mate does to that of master; but it lies with the master for the time being to appoint whom he chooses to the office of chief mate; yet, if the second mate

is capable of performing the duties of the office, he would ordinarily be appointed, as a matter of course.

When the starboard watch alone is on deck, and the master is below, the second mate has charge of the ship. When both watches are on deck, the chief mate is officer of the deck, to whichever watch the time may belong, according to the division of the hours. When the master is on deck, he commands, in one watch as well as in the other. But the second mate does not give up the charge of the vessel to the chief mate, if he should happen to be on deck during the starboard watch, unless all hands are up. While he has charge of the vessel in his watch, his duties are the common ones of a watch officer; that is, to have an eye to the helm, watch the weather, keep a general lookout round the horizon, see to the trimming of the yards and making and taking in of the light sails, give the master notice of anything important that occurs, heave the log, and keep an account of the winds, courses, rate of sailing, &c., and enter the same on the slate at the end of the watch. In these things the chief mate has no right to interfere, when it is not his watch on deck. But in all matters connected with the day's work and jobs, the second mate acts under the chief mate in his own watch, as that department belongs peculiarly to the chief mate. In working days, when the crew are employed about the ship and rigging, it is usual for the chief mate to tell the second mate what to do in his watch, and sometimes he remains on deck a few minutes to see to the commencement of the work. And while day's work is going forward, during the time that the chief mate has a watch below, as the second mate is expected to do jobs like a common seaman, it is the custom for the master to be on deck a good deal in the starboard watch and look after the vessel. While work is going forward, the second mate is about decks and aloft; but at other times, as at night, or on Sunday, or during bad weather, when day's work cannot be kept up, his place is on the quarter-deck; though still, he leaves it whenever any thing is to be done forward or aloft which requires the presence of a whole watch, as, setting or taking in a lower or topmast studding-sail, or any of the heavy sails.

When all hands are called to work ship, as in reefing, tacking, wearing, getting under way, coming to anchor, &c., the second mate's place is aft, at the fore and main braces and main and mizzen rigging; and generally, in all ship's duty, the chief mate and larboard watch belong forward, and the second mate and starboard watch aft. In tacking ship, the second mate looks out for the lee fore and main braces, sees them belayed to one pin and clear for letting go, lets go the main braces at "Mainsail haul!" and the fore at "Let go and haul!" He also steadies and weather braces as

the yards come up. He then sees to getting down the main tack, hauling out the main and mizzen bowlines, hauling aft the main sheet, and, in short, has charge of all the duty to be done upon the quarterdeck and in the waist.

In getting under way, the second mate takes a handspike at the windlass with the men, the place which custom has assigned him being the windlass-end. If anything is to done with the braces while the men are heaving at the windlass, it is his duty to attend to it, as the chief mate must be looking out for the ground tackle.

In reefing, the second mate goes aloft with the men, and takes his place at the weather earing. This is his proper duty, and he will never give it up, unless he is a youngster, and not strong enough or sufficiently experienced to lead the men on the yard. As soon as the order is given to clew down for reefing, and the halyards are let go, if there are hands enough to haul out the reef-tackles, he should go aloft, see that the yard is well down by the lifts, and then lay out to the weather yard-arm, and get his earing rove by the time the men are upon the yard. He then hauls it out and makes fast. If both topsails are reefed at once, he goes to the main; but if one sail is reefed at a time, he goes with the men from one to the other, taking the weather earing of each. He also goes aloft to reef a course, and takes the weather earing of that, in the same manner. He is not expected to go upon the mizzen topsail yard, as the mizzen topsail is a small sail, and can be reefed by a few men, or by the light hands.

In furling sails, the second mate goes aloft to the topsails and courses, and takes the bunt, as that is the most important place in that duty. He is not expected to go upon the mizzen topsail yard for any service, and though in bad weather, and in case of necessity, he would do so, yet it would be out of the usual course. He might also, in heavy weather, assist in furling a large jib, or in taking the bonnet off; but he never furls a topgallantsail, royal, or flying jib. In short, the fore or main topsail and the courses are the only sails which the second mate is expected to handle, either in reefing or furling. And, as I said before, if the sails are reefed or furled by the watch, he leads the starboard watch on the main and maintopsail yards, and the best man in the larboard watch leads them at the fore.

Although the proper place for the second mate on a yard is the bunt in furling, and the weather earing in reefing, and it is the custom to give him a chance at them at first, yet he cannot retain them by virtue of his office; and if he has not the necessary strength or skill for the stations, it is no breach of duty in a seaman to take them from him; on the contrary, he must always expect, in such

a case, to give them up to a smarter man. If the second mate is a youngster, as is sometimes the case, being put forward early for the sake of promotion, or if he is not active and ambitious, he will not attempt to take the bunt or weather earing.

In the ordinary day's work done on shipboard, the second mate works with his hands like a common seaman. Indeed, he ought to be the best workman on board, and to be able to take upon himself the nicest and most difficult jobs, or to shew the men how to do them. Among the various pieces of work constantly going forward on the vessel and rigging, there are some that require more skill and are less disagreeble than others. The assignment of all the work belongs to the chief mate, and if the second mate is a good seaman, (by which sailors generally understand a good workman upon rigging,) he will have the best and most important of these allotted to him; as, for instance, fitting, turning in and setting up rigging, rattling down, and making the neater straps, coverings, graftings, pointings, &c.; but if he is not a good workman, he will have to employ himself upon the inferior jobs, such as are usually assigned to ordinary seamen and boys. Whatever may be his capacity, however, he "carries on the work," when his watch alone is on deck, under directions previously received from the chief mate.

It is a common saying among seamen that a man does not get his hands out of the tar bucket by becoming second mate. The meaning of this is, that as a great deal of tar is used in working upon rigging, and it is always put on by hand, the second mate is expected to put his hands to it as the others do. If the chief mate were to take hold upon a piece of work, and it should be necessary to put any tar on it, he might call some one to tar it for him, as all labour by hand is voluntary with him; but the second mate would be expected to do it for himself, as a part of his work. These matters, small in themselves, serve to shew the different lights in which the duties of the officers are regarded by all seafaring men. There are, however, some inferior services, such as slushing down masts, sweeping decks, &c., which the second mate takes no part in; and if he were ordered to do so, it would be considered as punishment, and might lead to a difficulty.

In working ship, making and taking in sail, &c., the second mate pulls and hauls about decks with the rest of the men. Indeed, in all the work in which he is expected to join, he should be the first man to take hold, both leading the men and working himself. In one thing, however, he differs from the seamen; that is, he never takes the helm. Neither master nor mates ever take the wheel, but it is left to the men, who steer the vessel under the direction of the master or officer of the deck. He is also not expected to go

aloft to reeve and unreeve rigging, or rig in and out booms, when making or taking in sail, if there are men enough; but, as I have said, under ordinary circumstances, only goes aloft to reef or furl a topsail or course. In case, however, of any accident, as carrying away a mast or yard, or if any unusual work is going on aloft, as the sending up or down of topmasts or topsail yards, or getting rigging over the mast-head, sending down or bending a heavy sail in a gale of wind, or the like, then the second mate should be aloft to take charge of the work there, and to be the organ of communication between the men aloft and the chief mate, who should remain on deck, since he must superintend everything fore and aft, as well as alow and aloft. Sending up or down royal and topgallant yards, being light work and done by one or two hands, does not call the second mate aloft; but if the topgallant masts are to be sent down, or a jibboom rigged in in bad weather, or any other work going on aloft of unusual importance or difficulty, the second mate should be there with the men, leading them in the work, and communicating with and receiving the orders from the deck.

During his own watch, if the master is not on deck, the second mate commands the ship, gives his orders and sees to their execution, precisely as the chief mate does in his; but, at the same time, he is expected to lend a hand at every "all-hands rope."

There is another important part of the duties of a second mate; which is, the care of the spare rigging, blocks, sails, and small stuffs, and of the instruments for working upon rigging, as, marlinspikes, heavers, serving-boards, &c. It is the duty of the chief mate, as superintendent of the work, to see that these are on board, and to provide a constant supply of such as are made at sea; but when provided, it is the second mate's duty to look after them, to see them properly stowed away, and to have them at hand whenever they are called for. If, for instance, the chief mate orders a man to do a piece of work with certain instruments and certain kinds of stuff, the man will go to the second mate for them, and he must supply him. If there is no sailmaker on board, the second mate must also attend to the stowing away of the spare sails, and whenever one is called for, it is his duty to go below and find it. So with blocks, spare rigging, strands of yarns, and any part of a vessel's furniture, which an accident or emergency, as well as the ordinary course of duty, may bring into play.

So, also, with the stores. It is his duty to see to the stowing away of the water, bread, beef, pork, and all the provisions of the vessel; and whenever a new cask or barrel of water or provisions is to be opened, the second mate must do it. Indeed, the crew should never be sent into the hold or steerage, or to any part where there

is cargo or stores, without an officer. He also measures out the allowance to the men, at the rate ordered by the master. These latter duties, of getting out the stores and weighing or measuring the allowance, fall upon the third mate, if there is one, which is seldom the case in merchant vessels.

While in port, when cargo is taking in or discharging, the second mate's place is in the hold; the chief mate standing at the gangway, to keep account, and to have a general supervision. If the vessel is lying at anchor, so that the cargo has to be brought on or off in boats, then the boating duty falls upon the second mate, who goes and comes in the boats, and looks after the landing and taking off of the goods. The chief mate seldom leaves the vessel when in port. The master is necessarily on shore a good deal, and the second mate must come and go in the boats, so that the chief mate is considered as the ship-keeper. So, if a warp or kedge is to be carried out, or a boat is lowered at sea, as in boarding another vessel, or when a man has fallen overboard, in all such cases the second mate should take charge of the boat.

When in port, the second mate stands no anchor watch, but is expected to be on deck until eight o'clock, which is the hour at which the watch is usually set. If, however, the ship is short-handed, he would stand his watch; in which case it would probably be either the first or the morning watch.

The scond mate lives aft, sleeping in the cabin, if there are no passengers, or else in a state-room in the steerage. He also eats in the cabin, but at a second table, taking charge of the vessel while the master and chief mate are at their meals. In packet ships the two mates generally eat together, by themselves, at an earlier hour than the master and passengers.

Third Mate.—Merchant vessels bound on long voyages, upon which there are many vicissitudes to be anticipated, sometimes carry a third mate; but this is unusual; so much so, that his duties have hardly become settled by custom. He does not command a watch, but belongs to the larboard watch, and assists the chief mate in his duties. He goes aloft with the larboard watch to reef and furl, as the second mate does with the starboard, and performs very nearly the same duties aloft and about decks. If he is a good seaman, he will take the earing and bunt on the head yards, as the second mate does on the after yards; and in the allotment of work he will be favoured with the most important jobs, if a good workman, otherwise, he will be put upon the work of an ordinary seaman. He is not expected to handle the light sails. He stands no helm, lives aft, and will look out for the vessel at meal times, if the second mate dines with the master and chief mate. While in port, he will be in

the hold or in the boats, as he may be needed, thus dividing the labour with the second mate. Perhaps his place would more properly be in the boats, as that is considered more in the light of fatigue duty. He also relieves the second mate of the charge of the stores, and sees to the weighing and measuring of the allowances; and in his watch on deck, he relieves the chief mate of the inferior parts of his duty, such as washing decks in the morning, and looking after the boys in clearing up the decks at night.

CHAPTER IV.

CARPENTER, COOK, STEWARD, ETC.

CARPENTER.—Working ship—Seaman's work—Helm—Duty aloft—Work at his trade—Station—Berth and mess—Standing watch.
SAILMAKER.—Seaman's work—Work at trade—Duty aloft—Standing watch—Berth and mess—Station.
STEWARD.—Duty in Passenger-ships—Care of cabin-table—Passengers—In other vessels—Master—Mate—Aloft—About decks—Working ship.
COOK.—Berth—Standing watch—Care of galley and furniture—Working ship—Duty aloft.

CARPENTER.—Almost every merchant vessel of a large class, or bound upon a long voyage, carries a carpenter. His duty is to work at his trade under the direction of the master, and to assist in all-hands work according to his ability. He is stationed with the larboard or starboard watch, as he may be needed, though, if there is no third mate, usually with the larboard. In working ship, if he is an able seaman (as well as carpenter), he will be put in some more important place, as looking after the main tack and bowlines, or working the forecastle with the mate; and if capable of leading his watch aloft, he would naturally take the bunt or an earing. He is not expected to handle the light sails, nor to go above the topsail yards, except upon the work of his trade. If he ships for an able seaman as well as carpenter, he must be capable of doing seaman's work upon the rigging and taking his turn at the wheel, if called upon, though he would not be required to do it except in bad weather, or in case the vessel should be shorthanded. If he does not expressly ship for seaman as well as carpenter, no nautical skill can be required of him; but he must still, when all hands are called, or if ordered by the master, pull and haul about decks, and go aloft in the work usual on such occasions, as reefing and furling. But the inferior duties of the crew, as sweeping decks, slushing, tar-

ring, &c., would not be put upon him, nor would he be required to do any strictly seaman's work, except taking a helm in case of necessity, or such work as all hands join in.

The carpenter is not an officer, has no command, and cannot give an order even to the smallest boy; yet he is a privileged person. He lives in the steerage, with the steward, has charge of the ship's chest of tools, and in all things connected with his trade is under the sole direction of the master. The chief mate has no authority over him, in his trade, unless it be in the case of the master's absence or disability. In all things pertaining to the working of the vessel, however, and as far as he acts in the capacity of a seaman, he must obey the orders of the officers as implicitly as any of the crew would; though, perhaps, an order from the second mate would come somewhat in the form of a request. Yet there is no doubt that he must obey the second mate in his proper place, as much as he would the master in his. Although he lives in the steerage, he gets his food from the galley, from the same mess with the men in the forecastle, having no better or different fare in any respect; and he has no right on the quarterdeck, but must take his place on the forecastle with the common seamen.

In many vessels, during fine weather, upon long voyages, the carpenter stands no watch, but "sleeps in" at night, is called at daylight, and works all day at his trade. But in this case, whenever all hands are called, he must come up with the rest. In bad weather, when he cannot well work at his trade, or if the vessel becomes short-handed, he is put in a watch, and does duty on deck, turning in and out with the rest. In many vessels, especially those bound on short voyages, the carpenter stands his watch, and, while on deck, works at his trade in the day-time, if the weather will permit, and at night, or in bad weather, does watch duty according to his ability.

SAILMAKER.—Some ships of the largest class carry a sailmaker, though usually the older seamen are sufficiently skilled in the trade to make and mend sails, and the master or chief mate should know how to cut them out. As to the sailmaker's duty on board, the same remarks will apply to him that were made upon the carpenter. If he ships for seaman as well as sailmaker, he must do an able seaman's duty, if called upon; and if he does not so ship, he will still be required to assist in all-hands work, such as working ship, taking in and making sail, &c., according to his ability; and in bad weather, or a case of necessity, he may be put with a watch and required to do ship's duty with the rest. In all-hands work he is mustered with either watch, according to circumstances, and the station allotted to him will depend upon his qualities as a seaman; and, as

with the carpenter, if he is a good seaman, he would naturally have some more important post assigned him. He is not expected to handle the light sails, nor to go above the topsail yards. Nor would the inferior duties of the crew, such as tarring, slushing, and sweeping decks, be put upon him. In bad weather, or in case of necessity, he may be mustered in a watch, and must do duty as one of the crew, according to his ability. Sometimes he stands no watch, and works at his trade all day, and at others he stands his watch, and when on deck in the day-time, and during good weather, works at his trade, and at night, or in bad weather, does duty with the watch. He usually lives in the steerage with the carpenter, and always takes his food from the galley. He has no command, and when on deck belongs on the forecastle with the rest of the crew. In the work of his trade, he is under the sole direction of the master, or of the chief mate in the master's absence; but in ship's work he is as strictly under the command of the mates as a common seaman is.

STEWARD.—The duties of the steward are very different in packet ships, carrying a large number of passengers, from those which are required of him in other vessels. It is his duty to see that the cabin and state-rooms are kept in order; to see to the laying and clearing of the tables; to take care of the dishes, and other furniture belonging to them; to provide the meals, under the master's direction, preparing the nicer dishes himself; to keep the general charge of the pantry and stores for the cabin; to look after the cook in his department; and, lastly, which is as important a part of his duty as any other, to attend to the comfort and cenvenience of the passengers. These duties, where there are many passengers, require all his time and attention, and he is not called upon for any ship's duty.

In vessels which are not passenger-ships, he does the work which falls to the under-stewards of the large packets; cleans the cabin and state-rooms, sets, attends, and clears away the table, provides everything for the cook, and has charge of the pantry, where all the table furniture and the small stores are kept. He is also the body servant of the master. His relation to the chief mate is somewhat doubtful; but the general understanding is, that, although he waits upon him when at table, and must obey him in all matters relating to the ship's work, yet he is not in any respect his servant. If the mate wishes any personal service done, he would ask it, or make some compensation.

In these vessels, the steward must come on deck whenever all hands are called, and in working ship, pulls and hauls about decks with the men. The main sheet is called the steward's rope, and this he lets go and hauls aft in tacking and wearing. In reefing

and furling, he is expected to go upon the lower and topsail yards, and especially the mizzen topsail yard of a ship. No seamanship is expected of him, and he stands no watch, sleeping in at night and turning out at daylight; yet he must do ship's duty according to his ability when all hands are called for working ship or for taking in or making sail. In these things he must obey the mates in the same way that a common seaman would, and is punishable for disobedience. The amount of ship's duty required of him depends, as I have said, upon the number of passengers.

Cook.—The cook almost always lives in the forecastle, though sometimes in the steerage with the steward. He stands no watch, sleeping in at night, and working at his business throughout the day. He spends his time mostly in the cook-house, which is called the "galley," where he cooks both for the cabin and forecastle. This, with keeping the galley, boilers, pans, kids, &c., clean and in order, occupies him during the day. He is called with all hands, and in tacking and wearing, works the fore sheet. He is also expected to pull and haul about decks in all-hands work, and is occasionally called from his galley to give a pull at a tackle or halyards. No seamanship can be required of him, but he is usually expected to go upon a lower or topsail yard in reefing or furling, and to assist according to his ability in working ship. In regular passenger-ships, however, as he is more exclusively employed in cooking, he is not required to do any duty about decks, except in a case of necessity or of common danger. In some other vessels, too, if strongly manned, neither the cook nor steward are sent upon the yards. Yet it can, without doubt, be required of them, by the custom and understanding of the service, to go upon a lower or topsail yard to reef or furl.

If there are on board armourers, coopers, or persons following any other trades, they take the same place and follow the same rules as to duty that govern the carpenter and sailmaker. In the merchant service, when "all hands" are called, it literally calls every one on board but the passengers; excepting, as I have said, in the case of the cook and steward of strictly passenger-ships. Those persons of whom any duty can be required, who do not stand a watch, but sleep in at night and work during the day, are called *idlers*. Beside turning out with all hands, the idlers are sometimes called up at night to help the watch on deck in any heavy or difficult duty, when it is not desirable to call the other watch, who may have had severe service. This is allowable, if practised only in cases of necessity, and not carried to an extreme.

CHAPTER V.

ABLE SEAMEN.

Grades of seafaring persons—Able seamen—Ordinary seamen—Boys—Shipping and rating—Over-rating—Requisites of an able seaman—Hand, reef, and steer—Work upon rigging—Sailmaking—Day's work—Working ship—Reefing and furling—Watch duty—Coasters and small vessels.

SEAFARING persons before the mast are divided into three classes, —able seamen, ordinary seamen, and boys or green hands. And it may be remarked here that all green hands in the merchant service are termed *boys*, and rated as such, whatever may be their age or size. In the merchant service, wages are about the same on long voyages, the same proportion between the classes being preserved, an ordinary seaman getting less than an able seaman, and the boys, from nothing up to less than ordinary seamen, according to circumstances. A full-grown man must ship for boy's wages upon his first voyage. It is not unusual to see a man receiving boy's wages and rated as a boy, who is older and larger than many of the able seamen.

The crews are not rated by the officers after they get to sea, but, both in the merchant service and in the navy, each man rates himself when he ships. The shipping articles, in the merchant service, are prepared for each class, and a man puts his name down and contracts for the wages and duty of a seaman, ordinary seaman, or boy, at his pleasure. Notwithstanding this license, there are very few instances of it being abused; for every man knows that if he is found incompetent to perform the duty he contracts for, his wages can not only be reduced to the grade for which he is fitted, but that something additional will be deducted for the deception practised upon all concerned, and for the loss of service and the numerous difficulties incurred, in case the fraud is not discovered until the vessel has got to sea. But, still more than this, the rest of the crew consider it a fraud upon themselves; as they are thus deprived of a man of the class the vessel required, which makes her short-handed for the voyage, and increases the duty put upon themselves. If, for instance, the articles provide for six able seamen, the men expect as many, and if one of the six turns out not to be a seaman, and is put upon inferior work, the duties which would commonly be done by seamen will fall upon the five. The difficulty is felt still more in the watches; as, in the case I have supposed, there would be in one watch only two able seamen instead of three,

and if the delinquent was not a capable helmsman, the increased duty at the wheel alone would be, of itself, a serious evil. The officers also feel at liberty to punish a man who has so imposed upon all hands, and accordingly every kind of inferior and disagreeable duty is put upon him; and, as he finds no sympathy from the crew, his situation on board is made very unpleasant. Indeed, there is nothing a man can be guilty of, short of a felony, to which so little mercy is shewn on board ship; for it is a deliberate act of deception, and one to which there is no temptation, except the gain of better wages.

The common saying that to hand, reef, and steer, makes a sailor, is a mistake. It is true that no man is a sailor until he can do these things; yet to ship for an able seaman he must, in addition to these, be a good workman upon rigging. The rigging of a ship requires constant mending, covering and working upon in a multitude of ways; and whenever any of the ropes or yards are chafing or wearing upon it, it must be protected by "chafing gear." This chafing gear consists of worming, parcelling, serving, rounding, &c.; which requires a constant supply of small stuffs, such as foxes, sennit, spunyarn, marline, and the like, all which is made on board from condemned rigging and old junk. There is also a great deal of new rigging to be cut and fitted on board, which requires neat knots, splices, seizings, coverings, and turnings in. It is also frequently necessary to set up the rigging in one part of the vessel or another; in which case it must be seized or turned in afresh. It is upon labour of this kind that the crew is employed in the "day's work" and jobs which are constantly carried forward on board. A man's skill in this work is the chief test of his seamanship; a competent knowledge of steering, reefing, furling, and the like, being taken for granted, and being no more than is expected of an ordinary seaman. To put a marlinspike in a man's hand and set him to work upon a piece of rigging, is considered a fair trial of his qualities as an able seaman.

There is, of course, a great deal of difference in the skill and neatness of the work of different men; but I believe I am safe in saying that no man will pass for an able seaman in a square-rigged vessel, who cannot make a long and short splice in a large rope, fit a block-strap, pass seizings to lower rigging, and make the ordinary knots, in a fair, workmanlike manner. This working upon rigging is the last thing to which a lad training up to the sea is put, and always supposes a competent acquaintance with all those kinds of work that are required of an ordinary seaman or boy. A seaman is generally expected to be able to sew upon a sail, and few men ship for seamen who cannot do it; yet, if he is competent in

other respects, no fault can be found with an able seaman for want of skill in sailmaking.

In allotting the jobs among the crew, reference is always had to a man's rate and capacity; and it is considered a decided imputation upon a man to put him upon inferior work. The most difficult jobs, and those requiring the neatest work, will be given to the older and more experienced among the seamen; and of this none will complain; but to single out an able seaman and keep him at turning the spunyard winch, knotting yarns or picking oakum, while there are boys on board, and other properly seaman's work going forward at the same time, would be looked upon as punishment, unless it were temporarily, or from necessity, or while other seaman were employed in the same manner. Also, in consideration of the superior grade of an able seaman, he is not required to sweep down the decks at night, slush the masts, &c., if there are boys on board and at hand. Not that a seaman is not obliged to do these things. There is no question but that he is, just as much as to do any other ship's work; and if there are no boys on board or at hand at the time, or from any other cause it is reasonably required of him, no good seaman would object, and it would be a refusal of duty to do so, yet if an officer were deliberately, and without necessity for it, when there were boys about decks at the time, who could do the work as well, to order an able seaman to leave his work and sweep down the decks, or slush a mast, it would be considered as punishment.

In working ship, the able seamen are stationed variously; though, for the most part, upon the forecastle, at the main tack or fore and main lower and topsail braces; the light hands being placed at the cross-jack and fore and main topgallant and royal braces. In taking in and making sail, and in all things connected with the working of a ship, there is no duty which may not be required of an able seaman; yet there are certain things requiring more skill or strength, to which he is always put, and others which are as invariably assigned to ordinary seamen and boys. In reefing, the men go out to the yard-arms, and the light hands stand in toward the slings; while in furling, the bunt and quarters belong to the able seamen, and the yard-arms to the boys. The light hands are expected to loose and furl the light sails, as royals, flying jib and mizzen topgallant sail, and the men seldom go above the cross-trees, except to work upon the rigging, or to send a mast or yard up or down. The fore and main topgallant sails, and sometimes the flying jib of large vessels, require one or more able seamen for furling, but are loosed by light hands. In short, as to everything connected with working ship, making *and taking in* sail, &c., one general rule may be laid

down. A seaman is obliged to obey the order of the master or officer, asking no questions and making no objection, whether the duty to which he is ordered be that which properly belongs to an able seaman or not; yet as able seamen alone can do the more nice and difficult work, the light hands, in their turn, are expected to do that which requires less skill and strength. In the watch on deck at night, for instance, the able and ordinary seamen steer the ship, and are depended upon in case of any accident, or if heavy sails are to be taken in or set, or ropes to be knotted or spliced; and in consideration of this, if there is light work to be done, as coiling up rigging about decks, holding the log-reel, loosing or furling a light sail, or the like, the boys are expected to do it, and should properly be called upon by the officer, unless from some circumstance it should be necessary to call upon a man. Yet, as I have said before, if ordered, the seaman must do the thing, under any circumstances, and a refusal would be a refusal of his duty.

No man is entitled to the rate or wages of an able seaman who is not a good helmsman. There is always a difference in a ship's company as to this duty, some men being more steady, careful, and expert helmsmen than others; and the best quality cannot be required of every able seaman; yet if, upon fair trial, in bad weather, a man is found incapable of steering the ship, under circumstances not extraordinary, he would be considered by all on board to have failed of his duty. It should be remembered, however, that there are times when the very best helmsman is hardly able to steer a ship, and if a vessel is out of trim or slow in her motions, no skill can keep her close to her course.

An able seaman is also expected to do all the work necessary for reefing, furling, and setting sail, to be able to take a bunt or earing, to send yards and masts up and down, to rig in and out booms, to know how to reeve all the running rigging of a ship, and to steer, or pull an oar in a boat.

The standard of seamanship, however, is not so high in coasting vessels and those of a smaller class bound upon short voyages, in which all the work that is necessary upon the vessel or rigging is usually done when in port by people hired from on shore. In such vessels many men ship for able seamen, and are considered, upon the whole, competent, if they are able-bodied, and can hand, reef, and steer, who perhaps would only have shipped for ordinary seamen in vessels bound upon long voyages. In all large-class vessels, and in vessels of almost any class bound upon long voyages, the standard of seamanship is very nearly what I have before described.

CHAPTER VI.

ORDINARY SEAMEN.

Requisites—Hand, reef, and steer—Loose, furl, and set sails—Reeve rigging—Work upon rigging—Watch duty.

An ordinary seaman is one who, from not being of sufficient age and strength, or from want of sufficient experience, is not quite competent to perform all the duties of an able seaman, and accordingly receives a little less than full wages, and does not contract for the complete qualities of an able seaman. There is a large proportion of ordinary seamen in the navy. This is probably because the power of the officers is so great upon their long cruises to detect and punish any deficiency, and because, if a man can by any means be made to appear wanting in capacity for the duty he has shipped to perform, it will justify a great deal of hard usage. Men, therefore, prefer rather to underrate than to run any risk of overrating themselves.

An ordinary seaman is expected to hand, reef, and steer, under common circumstances, (which includes "boxing the compass;") to be well acquainted with all the running and standing rigging of a ship; to be able to reeve all the studdingsail gear, and set a topgallant or royal studdingsail out of the top; to loose and furl a royal, and a small topgallant sail or flying jib; and perhaps, also, to send down or cross a royal yard. An ordinary seaman need not be a complete helmsman, and if an able seaman should be put in his place at the wheel in very bad weather, or when the ship steered with difficulty, it would be no imputation upon him, provided he could steer his trick creditably under ordinary circumstances. In reefing or furling the courses and topsails, an ordinary seaman would not take the bunt or an earing, if there were able seamen on the yard; and perhaps, in the largest sized vessels, it would not be expected of him to pass an earing, or make up the bunt of a fore or main topsail or course in bad weather, yet he should know how to do both, and should be able to take a bunt or earing on the mizzen topsail yard, and on any topsail or lower yard of a small vessel.

It is commonly understood that an ordinary seaman need not be a workman upon rigging. Yet there are probably few men capable of performing the duties of an ordinary seaman, as above detailed, who would not be somewhat acquainted with work upon rigging, and who could not do the simpler parts of it, such as serving and splicing small ropes, passing a common seizing, or the like; and it

is always expected that an ordinary seaman shall be able to make all the hitches, bends, and knots in common use: such as, two half-hitches, a rolling hitch, timber hitch, clove hitch, common bend, and bowline knot. He would also be thought deficient if he could not draw, knot, and ball up yarns, and make spunyarn, foxes, and common sennit. Yet it is said that if he can steer his trick, and do his duty creditably in working ship and taking in and making sail, he is entitled to the rate and wages of an ordinary seaman, though he cannot handle a marlinspike or serving-board.

The duty upon which an ordinary seaman is put, depends a good deal upon whether there are boys or green hands on board or not. If there are, he has a preference over them, as an able seaman has over him, in the light work; and since he stands his helm regularly and is occasionally set to work upon rigging with the men, he will be favoured accordingly in the watch and in common duty about decks. Yet the distinction between ordinary seamen and boys is not very carefully observed in the merchant service, and an ordinary seaman is frequently called upon for boy's duty, though there are boys on board and at hand. If an officer wished for some one to loose a royal, take a broom and sweep the decks, hold the log-reel, coil up a rope, or the like, he would probably first call upon a boy, if at hand; if not, upon an ordinary seaman; but upon either of them indifferently, before an able seamen.

If there are no boys on board, the ordinary seamen do boys' duty; the only difference being, that if they take their trick at the wheel, and do other ordinary seaman's work, the able seamen are not so much preferred over them, as over mere boys and green hands.

CHAPTER VII.

BOYS.

Requisites—Wages—Watch—Day's work—Working ship—Helm—Duties aloft and about decks.

Boy is the term, as I have said before, for all green hands, whatever may be their size or age; and also for boys, who, though they have been at sea before, are not large and strong enough for ordinary seamen. It is the common saying, that a boy does not ship to know anything. Accordingly, if any person ships as a boy, and *upon boy's wages*, no fault can be found with him, though he should

not know the name of a rope in the ship, or even the stem from the stern. In the navy, the boys are divided into three classes, according to their size and experience, and different duties are put upon them. In the merchant service, all except able and ordinary seamen are generally upon the same wages, though boys' wages vary in different voyages. Sometimes they get nothing, being considered as apprentices; and from that their wages rise according to their capability. Whatever boys' wages may be, a person who ships for them for that voyage, whether more or less, is rated as boy, and his duty is according to his rate.

In the ordinary day's work, the boys are taught to draw and knot yarns, make spunyarn, foxes, sennit, &c., and are employed in passing a ball or otherwise assisting the able seamen in their jobs. Slushing masts, sweeping and clearing up decks, holding the log-reel, coiling up rigging, and loosing and furling the light sails, are duties that are invariably put upon the boys or green hands. They stand their watches like the rest, are called with all hands, go aloft to reef and furl, and work whenever and wherever the men do, the only difference being in the kind of work upon which they are put. In reefing, the boys lay in towards the slings of the yard, and in furling, they go out to the yard-arms. They are sent aloft immediately, as soon as they get to sea, to accustom them to the motion of a vessel, and to moving about in the rigging and on the yards. Loosing and furling the royals, setting topgallant studdingsails and reeving the gear, shaking out reefs, learning the names and uses of all the ropes, and to make the common hitches, bends, and knots, reeving all the studdingsail gear, and rigging in and out booms, and the like, is the knowledge first instilled into beginners. There is a good deal of difference in the manner in which boys are put forward in different vessels. Sometimes, in large vessels, where there are plenty of men, the boys never take the wheel at all, and are seldom put upon any but the most simple and inferior duties. In others, they are allowed to take the wheel in light winds, and gradually, if they are of sufficient age and strength, become regular helmsmen. So, also, in their duties aloft; if they are favoured, they may be kept at the royals and topgallant sails, and gradually come to the earing of a mizzen topsail. In work upon rigging, however, a green hand makes but little progress beyond ropeyarns and spunyarn, during his first voyage; since there are men enough to do the jobs, and he can be employed to more advantage in the inferior work, and in making and taking in light sails, steering in light winds, &c.; a competent knowledge of which duty is sufficient to enable him to ship for an ordinary seaman upon the next voyage. It is generally while in the grade of ordinary seaman that the use of the marlinspike

is learned. Whatever knowledge a boy may have acquired, or whatever may be his age or strength, so long as he is rated as a boy, (and the rates are not changed during a voyage unless a person changes his ship,) he must do the inferior duties of a boy. If decks are to cleared up or swept, rigging to be coiled up, a man is to be helped in his job, or any duty to be done aloft or about decks which does not require the strength or skill of a seaman, a boy is always expected to start first and do it, though not called upon by name.

CHAPTER VIII.

MISCELLANEOUS.

Watches—Calling the watch—Bells—Helm—Answering—Stations—Food—Sleep.

WATCHES.—A watch is a term both for a division of the crew, and for the period of time allotted to such division. The crew are divided into two watches, larboard and starboard; the larboard commanded by the chief mate, and the starboard by the second mate. These watches divide the time between them, being on and off duty, or, as it is termed, on deck and below, every other four hours. If, for instance, the chief mate with the larboard watch have the first night watch, from eight to twelve, at the end of the four hours the starboard watch is called, and the second mate takes the deck, while the larboard watch and the chief mate go below until four in the morning. At four they come on deck again, and remain until eight; having what is called the "morning watch." As they will have been on deck eight hours out of the twelve, while the starboard watch, who had the middle watch, from twelve to four, will only have been up four hours, they are entitled to the watch below from eight till twelve, which is called the "forenoon watch below." Where this alteration of watches is kept up throughout the twenty-four hours, four hours up and four below, it is called having "watch and watch." This is always given in bad weather, and when day's work cannot be carried on; but in most merchant vessels, it is the custom to keep all hands from one P.M. until sundown, or until four o'clock. In extreme cases, also, all hands are kept throughout the day; but the watch which has had eight hours on deck at night should always be allowed a forenoon watch below, if possible.

The watch from four to eight, P.M., is divided into two half-*watches of two* hours each, called *dog watches.* The object of this

is to make an uneven number of watches, seven instead of six; otherwise the same watch would stand during the same hours for the whole voyage, and those who had two watches on deck the first night would have the same throughout the trip. But the uneven number shifts the watches. The dog-watches coming about sundown, or twilight, and between the end of a day's work and the setting of the night-watch, are usually the time given for recreation,—for smoking, telling yarns, &c., on the forecastle; things which are not allowed during the day.

Calling the Watch.—As soon as eight bells are struck, the officer of the watch gives orders to call the watch, and one of the crew goes to the scuttle, knocks three times, and calls out in a loud voice, "All the starboard (or larboard) watch, ahoy!" or, "All starbowlines, ahoy!" or something of the kind, and adds, "Eight bells," or the hour; usually, also, a question, to know whether he is heard, as, "Do you hear the news there, sleepers?" Some one of the watch below must answer, "Ay, ay!" to shew that the call has been heard. The watch below is entitled to be called in a loud and audible voice, and in the usual manner; and unless called, they cannot be expected to come up. They must also turn out at once and come on deck as soon as they are called, in order that the other watch may go below, especially as they are never called until the hour has expired, and since some minutes are allowed for turning out, dressing, and getting on deck. The man whose turn it is to take the helm goes immediately aft, and ought to be the first on deck, as the two hours' duty at the helm at night is tedious, and entitles a man to be speedily relieved. It is considered a bad trait in a man to be slack in relieving the helm. The relieving the helm is also the sign that the watch is changed, and no man is permitted to go below until that has been done. It is a man's watch on deck so long as one of his watch is at the wheel.

Bells.—The time at sea is marked by bells. At noon, eight bells are struck, that is, eight strokes are made upon the bell; and from that time it is struck every half-hour throughout the twenty-four, beginning at one stroke and going as high as eight, adding one at each half-hour. For instance, twelve o'clock is eight bells, half-past twelve is one bell, one o'clock is two bells, half-past one three bells, and so on until four o'clock, which will be eight bells. The watch is then out, and for half-past four you strike one bell again. A watch of four hours therefore runs out the bells. It will be observed, also, that even bells come at the full hours, and the odd bells at the half-hours. For instance, eight bells is always twelve, four, or eight o'clock; and seven bells always half-past three, half-past seven, or half-past eleven.

The bells are sounded by two strokes following one another quickly, and then a short interval; after which, two more; and so on. If it is an odd number, the odd one is struck alone, after the interval. This is to make the counting more sure and easy; and, by this means, you can, at least, tell whether it is an hour or a half-hour.

HELM.—Neither the master nor mates of a merchant vessel ever take the helm. The proper helmsmen are the able and ordinary seamen. Sometimes the carpenter, sailmaker, &c., if they are seamen, are put at the helm; also the boys, in light winds, for practice. Each watch steers the ship in its turn, and the watch on deck must supply the helmsman, even when all hands are called. Each man stands at the helm two hours, which is called his *trick*. Thus, there are two tricks in a watch. Sometimes, in very cold weather, the tricks are reduced to one hour; and, if the ship steers badly, in a gale of wind, two men are sent to the wheel at once. In this case, the man who stands on the weather side of the wheel is the responsible helmsman, the man at the lee wheel merely assisting him by heaving the wheel when necessary.

The men in the watch usually arrange their tricks among themselves, the officers being satisfied if there is always a man ready to take the wheel at the proper time. In steering, the helmsman stands on the weather side of a wheel and on the lee side of a tiller. But when steering by tiller-ropes with no hitch round the tiller-head, or with a tackle, as in heavy gale and bad sea, when it is necessary to ease the helm a good deal, it is better to stand up to windward and steer by the parts of the tackle or tiller-ropes.

In relieving the wheel, the man should come aft on the lee side of the quarter-deck, (as indeed he always should unless his duty lies to windward,) go to the wheel behind the helmsman and take hold of the spokes, so as to have the wheel in command when the other lets go. Before letting go, the helmsman should give the course to the man that relieves him in an audible voice, and the new man should repeat it aloud just as it was given, so as to make it sure that he has heard correctly. This is especially necessary, since the points and half-points are so much alike that a mistake might easily be made. It is the duty of the officer of the watch to be present when the wheel is relieved, in order to see that the course is correctly reported and understood; which is another reason why the course should be spoken by both in a loud tone. It is unseamanlike and reprehensible to answer, "Ay, ay!" or, "I understand," or the like, instead of repeating the course.

If a vessel is sailing close-hauled and does not lay her course, the *order is,* "Full and by!" which means, by the wind, yet all full.

If a vessel lays her course, the order then is her course, as N. W. by W., E. by S., and the like.

When a man is at the wheel, he has nothing else to attend to but steering the ship, and no conversation should be allowed with him. If he wishes to be relieved during his trick, it should not be done without the permission of the officer, and the same form of giving and repeating the course should be gone through, though he is to be absent from the helm but a minute or two.

If an order is given to the man at the wheel as to his steering, he should always repeat the order, distinctly, that the officer may be sure he is understood. For instance, if the order is a new course, or, "Keep her off a point!" "Luff a little!" "Ease her!" "Meet her!" or the like, the man should answer by repeating the course or the order, as "Luff a little, sir," "Meet her, sir," &c., and should not answer, "Ay, ay, sir!" or simply execute the order as he understands it. This practice of repeating every, even the most minute order at the wheel, is well understood among seamen, and a failure or refusal to do so is an offence sometimes leading to disagreeable results.

If, when the watch is out and the other watch has been called, all hands are detained for any purpose, as, to reef a topsail, to set studdingsails, or the like, the helm should not be relieved until the work is done and the watch ready to go below.

Answering.—The rule has just been stated which requires a man at the wheel to answer by repeating distinctly the order given him. The same rule applies to some other parts of a seaman's duty, though to none so strictly, perhaps, as to that. In tacking, where the moment of letting go a rope or swinging a yard is very important, the order of the master is always repeated by the officer on the forecastle. This enables the master to know whether he is heard and understood, to repeat his order if it is not answered at once, and to correct any mistake, or obviate some of its consequences. The same may be said generally of every order to the proper or instant execution of which unusual importance is attached. If, for instance, a man is stationed by a rope to let it go upon an order given, if an order is addressed to him which he supposes to be for that purpose, he should answer, "Let go, sir!" and usually adds, "All gone!" as soon as it is done. Green hands should bear in mind that whenever an order is of a kind which ought to be repeated, it must be so, without reference to a man's distance from the officer who gives the order, but just as much if standing a few feet from him as if at the mast-head, since, upon the whole, the chance of misapprehension is not much less in one case than in the other.

The common run of orders, however, are sufficiently answered by

the usual reply of "Ay, ay, sir!" which is the proper seaman's answer, where the repetition of the order is not necessary. But *some answer or other should always be made to an order.* This is a rule difficult to impress upon beginners, but the reasonableness of it is obvious, and it is well understood among all seafaring persons; and even though an officer should see that the man was executing his order, he still would require, and has a right to demand, a reply. The rule is as strictly observed by the master and officers between themselves, as it is required by them of the men; for the reason is the same. It is almost unnecessary to say that the addition "Sir" is always to be used in speaking to the master or to either of the mates. The mates in their turn use it to the master. "Mr" is always to be prefixed to the name of an officer, whether chief or second mate.

In well-disciplined vessels, no conversation is allowed among the men when they are employed at their work; that is to say, it is not allowed in the presence of an officer or of the master; and although, when two or more men are together aloft, or by themselves on deck, a little low conversation might not be noticed, yet if it seemed to take off their attention, or to attract the attention of others, it would be considered a breach of duty. In this respect the practice is different in different vessels. Coasters, fishermen, or small vessels on short voyages, do not preserve the same rule; but no seaman who has been accustomed to first-class ships will object to a strictness as to conversations and laughing, while at day's work, very nearly as great as is observed in a school. While the crew are below in the forecastle, great license is given them; and the severest officer will never interfere with the noise and sport of the forecastle, unless it is a serious inconvenience to those who are on deck. In working ship, when the men are at their stations, the same silence and decorum is observed. But during the dog-watches, and when the men are together on the forecastle at night, and no work is going forward, smoking, singing, telling yarns, &c., are allowed; and, in fact, a considerable degree of noise and *skylarking* is permitted, unless it amounts to positive disorder and disturbance.

It is a good rule to enforce, that whenever a man aloft wishes anything to be done on deck, he shall hail the officer of the deck, and not call out, as is often done, to any one whom he may see about decks, or generally to have a thing done by whoever may happen to hear him. By enforcing this rule the officer knows what is requested, and may order it and see that it is done as he thinks fit; whereas, otherwise, any one about decks, perhaps a green hand, may execute the order upon his own judgment and *after his* own manner.

STATIONS.—The proper place for the seamen when they are on deck and there is no work going forward, is on the forecastle. By this is understood so much of the upper deck as is forward of the after fore-shroud. The men do not leave this to go aft or aloft unless ship's duty requires it of them. In working ship, they are stationed variously, and go wherever there is work to be done. The same is the case in working upon rigging. But if a man goes aft to take the wheel, or for any other purpose which does not require him to go to windward, he will go on the lee side of the quarter-deck.

FOOD, SLEEP, &c.—The crew eat together in the forecastle, or on deck, if they choose, in fine weather. Their food is cooked at the galley, and they are expected to go to the galley for it and take it below or upon the forecastle. The cook puts the eatables into wooden tubs called "kids," and of these there are more or less, according to the number of men. The tea or coffee is served out to each man in his tin pot, which he brings to the galley. There is no table, and no knives nor forks to the forecastle; but each man helps himself, and furnishes his own eating utensils. These are usually a tin pot and pan, with an iron spoon.

The usual time for breakfast is seven bells, that is, half-past seven o'clock in the morning. Consequently, the watch below is called at seven bells, that they may get breakfast and be ready to take the deck at eight o'clock. Sometimes all hands get breakfast together at seven bells; but in bad weather, or if watch and watch is given, it is usual for the watch below to breakfast at seven bells, and the watch on deck at eight bells, after they are relieved. The dinner hour is twelve o'clock, if all hands get dinner together. If dinner is got "by the watch," the watch below is called for dinner at seven bells (half-past eleven), and the other watch dine when they go below, at twelve.

If all hands are kept in the afternoon, or if both watches get supper together, the usual hour is three bells, or half-past five; but if supper is got by the watch, three bells is the time for one watch and four for the other.

In bad weather, each watch takes its meals during the watch below, as, otherwise, the men would be liable to be called up from their meals at any moment.

As to the time allowed for SLEEP; it may be said, generally, that a sailor's watch below is at his own disposal to do what he chooses in, except, of course, when all hands are called. The meal times, and time for washing, mending, reading, writing, &c., must all come out of the watch below; since, whether there is work going forward or not, a man is *considered as* belonging to the ship in his watch on

deck. At night, however, especially if watch and watch is not given, it is the custom in most merchant vessels, in good weather, to allow the watch to take naps about the decks, provided one of them keeps a look-out, and the rest are so that they can be called instantly. This privilege is rather a thing winked at than expressly allowed, and if the man who has the look-out falls asleep, or if the rest are slow in mustering at a call, they are all obliged to keep awake. In bad weather, also, or if near land, or in the track of other vessels, this privilege should not be granted. The men in each watch usually arrange the helms and look-outs among themselves, so that a man need not have a helm and a look-out during the same watch. A man should never go below during his watch on deck, without permission; and if he merely steps down into the forecastle for an instant, as, to get his jacket, he should tell some one, who may speak to him at once, if the watch is called upon.

PART III.

CHAPTER I.

LAWS RELATING TO THE PROPERTY OF SHIPS AND THE DUTIES OF MASTERS AND MARINERS.

Title—Builder's certificate—Bill of sale—Preparatives for registry—Owners—First registry—Certificate of registry and provisional certificate—National character—Transfers and transmissions—(1.) *Transfers*—(2.) *Transmissions*—Mortgages—Certificates of mortgage and of sale—Registry anew, and transfer o registry—(1.) *Registry anew*—(2.) *Transfer of registry*—Registry, miscellaneous—Boats for sea-going ships—Lights and fog-signals, &c.—Build and equipment of steam ships.

TITLE—BUILDER'S CERTIFICATE—BILL OF SALE.—The property in ships,—either acquired by building or by purchase,—the share or shares of a ship,—is always evidenced by written documents, in the case of a newly-built British ship by the builder's certificate, giving a true account of the proper denominations and the tonnage of said ship, as estimated by him (see the rules for the measurement of tonnage, Appendix, Note A), and of the time when, and the place where, such ship was built, and the name of the party (if any) on whose account he has built the same;—and in the case of a ship or share acquired by purchase (whether a British or foreign built ship), the property is proved by the bill of sale, under which the ship or share becomes vested in the person requiring to be registered under this bill. This bill of sale is the universal instrument of transfer in the usages of all maritime countries, and is especially required by the British statute law, and a statutory form prescribed (17 and 18 Vict., c. 104, § 55). Upon the first registry, and in addition to the builder's certificate, the party requiring to be registered as owner of either a ship or share must make the statutory declaration, and deliver the surveyor's certificate to the registrar, both in the forms annexed *to the act (§ 38, 36).*

The 55th section of the same enacts, that when a registered ship or any share therein is disposed of to persons qualified to be owners of British ships, the same must be transferred by bill of sale, containing the same description of the ship as in the surveyor's certificate, or such other description as is sufficient to identify the ship to the satisfaction of the registrar; and this bill of sale must be in the form annexed to the act, or as near thereto as circumstances permit, and executed by the person transferring in presence of one or more attesting witnesses (§ 55).

PREPARATIVES FOR REGISTRY.—The property in a ship is divided into sixty-four shares, and subject to the provisions with respect to joint-owners or owners by transmission, as after-mentioned. Not more than thirty-two individuals are entitled to be registered at the same time as owners of any one ship; but any number of persons, not exceeding five, can be registered as joint-owners of a ship or of a share or shares therein. This rule does not affect the beneficial title of any number of persons, or of any company represented by or claiming under or through any registered owner or joint-owner. No person is entitled to be registered as owner of any fractional part of a share in a ship; but the joint-owners of a ship or of a share or shares therein are considered as constituting one person only as regards this rule relating to the number of persons entitled to be registered as owners; and joint-owners are not entitled to dispose in severalty of any interest in the ship, or share or shares, in respect of which they are registered (§ 37).

A body-corporate can be registered as owner by its corporate name (§ 37).

Preparatory to the first registry of any vessel, her name and the name of the port to which she belongs must be painted on a conspicuous part of the stern, on a dark ground in white or yellow letters, not less than four inches long. No change must be made in the name of a ship so registered; and no concealment, absence, or avoidable obliteration of the names so painted must be permitted, except for the purpose of escaping capture by an enemy; nor must the ship be described by or with the knowledge of the owner or master by any name other than that by which she is registered. And for every breach of these rules, or any of them, the owner and master each incur a penalty not exceeding £100 (§ 34).

Also, previous to registry, the ship must be surveyed by a surveyor, appointed under the Merchant Shipping Act, who grants a certificate in the form A in the schedule annexed to the act,—specifying her tonnage, build, and such other particulars as are required by the Board of Trade; and this certificate by the surveyor must be *delivered to* the registrar before registry (§ 36).

OWNERS.—A *British* ship must belong wholly to owners of the following description:—

(1.) Natural-born British subjects; but no natural-born subject who has taken the oath of allegiance to any foreign sovereign or state can be such an owner, unless, subsequently to his taking that oath, he has taken the oath of allegiance to her Majesty, and, during the whole period of his being an owner, is and continues to be resident in some place within her Majesty's dominions,—or, if not so resident, member of a British factory, or partner of a house actually carrying on business in the United Kingdom, or in some other place within her Majesty's dominions.

(2.) Persons made denizens by letters of denization, or naturalised by or pursuant to any act of the Imperial Legislature, or by or pursuant to any act or ordinance of the proper legislative authority in any British possession; but such persons must be, during the whole period of their so being owners, resident in some place within her Majesty's dominions; or if not so resident, members of a British factory, or partners in a house actually carrying on business in the United Kingdom, or in some other place within her Majesty's dominions, and who have taken the oath of allegiance to her Majesty subsequent to the period of their being so made denizens or naturalised.

(3.) Bodies corporate, established under, and subject to the laws of, and having their principal place of business in the United Kingdom, or some British possession (§ 18).

No notice of any trust, express, implicit, or constructive, can be entered in the register-book, or is receivable by the registrar (§ 43).

FIRST REGISTRY.—Every application for the registry of a ship must, in the case of individuals, be made by the person requiring to be registered as owner, or by some one or more of such persons, if more than one, or by his or their duly authorised agent; and in the case of a body corporate, by their duly qualified agent. The authority of this agent, when appointed by individuals, must be testified by *some writing* under the hand of the appointees; and, when by a corporate body, by *some instrument* under the common seal of that body (§ 35).

No person can be registered as owner of a ship, or of any share therein, until he has made and subscribed the declaration in the form B in the schedule annexed to the act, referring to the foresaid certificate of the surveyor, and containing: (1.) A statement of his qualification to be an owner of a British ship: (2.) A statement of the time when, and the place where, the ship was built; or, (if foreign built, and the time and place of building not known), a statement *that she is foreign* built, and that he does not know the

time and place of her building; and, in addition, in the case of a foreign ship, a statement of her foreign name; or, in the case of a ship condemned, a statement of the time and place, and court at and by which she was condemned: (3.) A statement of the name of the master: (4.) A statement of the number of shares of which the party is entitled to be registered as owner: (5.) A denial that, to the best of his knowledge and belief, any unqualified person, or body of persons, is entitled, as owner, to any legal or beneficial interest in such ship, or share therein. And this declaration of ownership must be made and subscribed in presence of the registrar, if the party making the declaration resides within five miles of the port of registry; but, if beyond that distance, in presence of any registrar, or of any justice of the peace (§ 38).

A similar declaration is required to be made and subscribed, in the same manner, by the secretary or other duly appointed public officer of a body corporate entitled to be registered as the owner of a ship, or of any share therein (§ 39).

These requisites being duly complied with, viz., the painting of the name and port, the builder's certificate, of a *British* built ship, the surveyor's certificate, and the owner's declaration, the registrar then enters in the register-book the following particulars relating to that ship: (1.) The name of the ship, and of the port to which she belongs: (2.) The details as to her tonnage, build, and description comprised in the surveyor's certificate: (3.) The several particulars as to her origin stated in the declaration or declarations of ownership: (4.) The names and descriptions of her registered owner or owners, and, if there is more than one, the proportions in which they are interested in the ship (§ 42).

In every *British* registered ship, the number denoting the ascertained register tonnage, and the number of her certificate of registry, must be deeply, or otherwise permanently, marked on her main beam, and must be so continued: and if, at any time, it ceases to be so continued, the ship is no longer to be recognised as a British ship (§ 25). Whenever the tonnage of a ship is thus ascertained and registered, the same is thenceforth deemed to be the tonnage of that ship, and must be repeated in every subsequent registry thereof, unless any alteration is made in the form or capacity of the ship, or unless it is discovered that her tonnage has been erroneously calculated; in either of which cases the ship must be remeasured, and her tonnage determined, and registered according to the rules of the act (§ 26).

Every British ship must be registered in manner foresaid, except, *(1.) Ships* duly registered before the act came into operation: (2.) *Ships not* exceeding fifteen tons' burthen, employed solely in naviga-

tion on the rivers or coasts of the United Kingdom, or on the rivers or coasts of some British possession within which the managing owners reside: (3.) Ships not exceeding thirty tons' burthen, and not having a whole or fixed deck, and employed solely in fishing or trading coastwise on the shores of Newfoundland, or parts adjacent thereto, or in the Gulf of St Laurence, or on such portion of the coasts of Canada, Nova Scotia, or New Brunswick, as lie bordering on that gulf (§ 19).

Certificate of Registry and Provisional Certificate.—When the registry of a ship has been completed, as now mentioned, the registrar grants a certificate of registry in the form D, as in the schedule annexed to the act, comprising the following particulars: (1.) The name of the ship and of the port to which she belongs: (2.) The details as to her tonnage, build, and description, comprised in the surveyor's certificate: (3.) The name of her master: (4.) The several particulars as to her origin stated in the declaration or declarations of ownership: (5.) The names and descriptions of her registered owner or owners; and, if more than one, the proportions in which they are respectively interested, indorsed on the certificate (§ 44). This certificate of registry must be used only for the lawful navigation of the ship, and is not subject to detention by reason of any title, lien, charge, or interest whatsoever, which any owner, mortgagee, or other person may have, or claim to have, on or in the ship described in the certificate (§ 50).

If the master or owner of the ship uses, or attempts to use, for the navigation of that ship, a certificate of registry not legally granted in respect of that ship, he is guilty of a misdemeanor, and it is lawful for any commissioned officer, on full pay, in her Majesty's military or naval service, or any British officer of customs, or any British consular officer, to seize and detain that ship, and to bring her for adjudication before the High Court of Admiralty in England or Ireland, or any court having admiralty jurisdiction in her Majesty's dominions. If that court is of opinion that this use, or attempt at use, had taken place, the court pronounces the ship, with her tackle, apparel, and furniture, to be forfeited to her Majesty; and can award such portion of the proceeds arising from the sale thereof, as it may think just, to the officer bringing in the same for adjudication (§ 52).

With the sanction of the Commissioners of Customs, the registrar may, upon the delivery up to him of a former certificate, grant a new certificate in place of the one so delivered up (§ 47).

If any person whatever, whether interested or not in the ship, refuses, on request, to deliver up the certificate of registry, when in *his possession, or under his* control, to the person for the time being

entitled to the custody thereof, for the purposes of the lawful navigation of the ship, or to any registrar, officer of customs, or other person legally entitled to require such delivery, it is lawful for any justice, by warrant under his hand and seal, or for any court capable of taking cognizance of such matter, to cause the person so refusing to appear before him, and to be examined touching his refusal. Unless it is proved to the satisfaction of the justice or court, that there was reasonable cause for his refusal, the offender incurs a penalty not exceeding £100; but, if it is made to appear to the justice or court that the certificate is lost, the party complained of is discharged, and the justice or court thereupon certify that the certificate of registry is lost (§ 50). If the person charged with the detainer or refusal is proved to have absconded, so that the warrant of the justice or process of the court cannot be served upon him, or if he persist in his refusal to deliver the certificate, the justice or court certify the fact, and the same proceedings can then be taken as in the case of a certificate of registry mislaid, lost, or destroyed, or as near thereto as circumstances permit (§ 51).

If any registered ship is either actually or constructively lost, taken by the enemy, burnt, or broken up; or if, by reason of a transfer to any persons not qualified to be owners of *British* ships, or of any other matter or thing, that ship ceases to be a *British* ship; every person who, at the time of the occurrence of any of these events, owns such ship, or any share therein, must, immediately upon obtaining knowledge of any such occurrence,—and if no notice thereof has already been given to the registrar at her port of registry, give such notice to him, and he immediately makes an entry thereof in his register-book. Except in cases where the certificate of registry is lost or destroyed, the master of every ship so circumstanced must immediately, if such event occurs in port, but if it occurs elsewhere, then within ten days after his arrival in port, deliver the certificate of registry of his ship to the registrar; or, if there is no registrar, to the British consular officer at that port; and the registrar, if not himself the registrar of her port of registry, forthwith forwards the certificate so delivered to him, to the registrar of the ship's port of registry. Every owner and master who, without reasonable cause, makes default in obeying these provisions, incurs, for each offence, a penalty not exceeding £100 (§ 53).

In the event of the certificate of registry being mislaid, lost, or destroyed, if this occurs in any port of the United Kingdom, the ship being registered in the United Kingdom, or at any port in any *British* possession, the ship being registered in the same *British* possession, then the registrar of her port of registry can grant a new *certificate* of registry in lieu of, and as a substitute for, her original

certificate. But, if such an event occurs elsewhere, the master, or some other person having a knowledge of the circumstances, must make a declaration before the registrar of any port having a *British* registrar, at which the ship is at the time, or first arrives after the mislaying, loss, or destruction; and this declaration must state the facts of the case, and the names and descriptions of the registered owners of the ship, to the best of the declarant's knowledge and belief. Thereupon, the registrar grants a provisional certificate as near to the form appointed by the Merchant Shipping Act as circumstances permit, and he inserts therein, a statement of the circumstances under which this provisional certificate is granted (§ 48).

Within ten days after the first subsequent arrival of the ship at her port of discharge, if she is registered in the United Kingdom, or if registered elsewhere, at her port of discharge in the *British* possession within which her port of registry is situate, this provisional certificate must be delivered up to the registrar thereof, who thereupon grants a new one, as near to the form appointed by the Merchant Shipping Act as circumstances permit; and if the master neglects to deliver up this certificate within the above time, he incurs a penalty not exceeding £50 (§ 49).

If a ship becomes the property of persons qualified to be owners of British ships, at any foreign port, the British consular officer resident at that port can grant the master of the ship, upon his application, a provisional certificate, stating the name of the ship, the time and place of her purchase, and the names of her purchasers; the name of her master; the best particulars as to her tonnage, build, and description, that he is able to obtain; and he forwards a copy of this certificate, at the first convenient opportunity, to the Commissioners of Customs in London. This certificate possesses the same force as a certificate of registry, until the expiration of six months, or until such earlier time as the ship arrives at some port where there is a British registrar; but upon the expiration of this time, or upon the arrival in such a port, this certificate becomes void (§ 54).

National Character.—The requisites of a *British* ship, as to the ownership (§ 18), the registering (§ 19), and the marking of the tonnage, and of the number of the certificate (§ 25), have been already noticed; and no officer of customs can grant a clearance or transire for any ship required by the act to be registered, for the purpose of enabling her to proceed to sea as a *British* ship, unless the master, upon being required so to do, produces to him her certificate of registry; and if she attempts to proceed to sea as a *British* ship, without a clearance or transire, the officer can detain her until such *certificate is* produced to him (§ 19).

Whenever a registered ship is so altered as not to correspond with the particulars relating to her tonnage or description (§ 84), she is to be registered anew, in the same manner in all respects as required on the first registry, or an indorsement of the alteration made as directed hy the act (§ 84, 85); and on failure of such registry anew, or registry of alteration of a ship so altered, that ship is deemed not duly registered, and can no longer be recognised as a *British* ship (§ 87).

No officer of customs can grant a clearance or transire for any ship, until the master has declared to that officer the name of the nation to which she claims that she belongs, and thereupon the officer inscribes this name on the clearance or transire; and if she attempts to proceed to sea without such clearance or transire, any customs' officer can detain her until this declaration is made (§ 102).

The offences now to be mentioned are punishable as follows:—

(1.) If any person uses the *British* flag and assumes the *British* national character on board any ship owned, in whole or in part, by any person not entitled by law to own *British* ships,—for the purpose of making that ship appear to be a British ship,—unless this assumption has been made for the purpose of escaping capture by an enemy, or by a foreign ship of war in exercise of some belligerent right, and, in any proceeding for enforcing any such forfeiture, the burden of proving a title to use the *British* flag, and assume the *British* national character, lies upon the person using and assuming the same.

(2.) If the master or owner of a British ship does, or permits to be done, any matter or thing,—or carries, or permits to be carried, any papers or documents,—with intent to conceal the *British* character of his ship from any person entitled by *British* law to inquire into the same,—or to assume a foreign character,—or with intent to deceive any person as last mentioned,—that ship is forfeited to her Majesty; and if the master commits,—or is privy to the commission of the offence,—he is guilty of a misdemeanor.

(3.) If any unqualified person,—except in case of transmitted interests, as mentioned in the following section,—acquires as owner, any interest, either legal or beneficial, in a ship using a *British* flag, and assuming the British character,—his interest is forfeited to her Majesty.

(4.) If any person, on behalf of himself or any other person or body of persons, wilfully makes a false declaration touching the qualification of himself, or any such other person or body of persons, to own British ships or shares therein, the declarant is guilty of a misdemeanor; and the ship or share, in respect of which this declaration is made,—if the same has not been forfeited under the

foregoing provision,—is, to the extent of the interest therein of the person making the declaration, forfeited to her Majesty,—unless it is shewn that he had no authority to make the same, of the parties on whose behalf the declaration was made.

And, in order that the foregoing provisions as to forfeitures may be carried into effect, it is lawful for any commissioned officer on full pay in the military or naval service of her Majesty,—or any *British* officer of customs,—or any *British* consular officer,—to seize and detain any ship which has,—either wholly, or as to any share therein, become subject to forfeiture, as aforesaid,—and to bring her for adjudication before the High Court of Admiralty in England or Ireland, or any court having admiralty jurisdiction in her Majesty's dominions. Thereupon that court can make such order in the case as it may think fit,—and can award to the officer bringing in the same for adjudication such portion of the proceeds of the sale of any forfeited ship or share as it may think right (§ 103). No officer as aforesaid is responsible,—either civilly or criminally,—to any person whomsoever, in respect of the seizure or detention of any ship that has been seized or detained by him in pursuance of the foregoing provisions, notwithstanding such ship is not brought in for adjudication,—or, if so brought in, is declared not to be liable to forfeiture,—if it is shewn to the satisfaction of the judge or court before whom any trial relating to such ship, or her seizure or detention, is held, that there were reasonable grounds for that seizure or detention. But, if no such grounds are shewn, the judge or court can award payment of costs and damages to any party aggrieved, and make such order in the premises as it thinks just (§ 104).

If any colours,—usually worn by her Majesty's ships,—or any colours resembling those of her Majesty,—or any distinctive national colours,—except the red ensign usually worn by merchant's ships,—or any pendant usually carried by her Majesty's ships,—or any pendant in anywise resembling such pendant,—are or is hoisted on board any ship belonging to any subject of her Majesty, without warrant for so doing from her Majesty or from the Admiralty,—the master of that ship or boat,—or the owner thereof, if on board the same,—and every other person hoisting, or joining or assisting in hoisting the same,—incurs, for each offence, a penalty not exceeding £500. It is lawful for any officer on full pay in the military or naval service of her Majesty,—or any British officer of customs,—or any *British* consular officer,—to board any such boat or ship, and to take away any such jack, colours, or pendant, which are forfeited to her Majesty (§ 105).

Whenever it is declared by the Merchant Shipping Act, that a

ship belonging to any person or body corporate, qualified, according to that act, to be owners of *British* ships, shall not be recognised as a *British* ship, that ship is not entitled to any benefits, privileges, advantages, or protection usually enjoyed by *British* ships, and is not entitled to use the *British* flag, or assume the *British* national character; but, so far as regards the payment of dues,—the liability to pains and penalties,—and the punishment of offences committed on board, or by any person belonging to her,—that ship is to be dealt with in the same manner, in all respects, as if she were a recognised British ship (§ 106).

TRANSFERS AND TRANSMISSIONS.—(1.) *Transfers.*—When a registered ship or any share therein is disposed of to persons qualified to be owners of *British* ships,—the same must be transferred by bill of sale, which must contain the same description of the ship as is contained in the surveyor's certificate, or such other description as is sufficient to identify the ship to the satisfaction of the registrar; and this bill of sale must be in the form E in the schedule annexed to the act, or as near thereto as circumstances permit, and must be executed by the transferer in presence of, and be attested by, one witness (§ 55).

No individual is entitled to be registered as transferee of a ship, or any share therein, until he has made a declaration in the form F in the schedule annexed to the act, stating his qualification to be registered as owner of a share in a British ship, and containing a denial similar to the denial before required (§ 38), to be contained in a declaration of ownership by an *original* owner. No body corporate is entitled to be registered as transferee of a ship, or any share therein, until the secretary, or other duly appointed public officer of that body, has made a declaration in the form G in the schedule annexed to the act, stating the name of the body corporate, such circumstances of its constitution and business as prove it to be qualified to own a *British* ship, and containing a denial similar to the denial before required to be contained in a declaration of ownership made on behalf of a body corporate (§ 30). In the case of an individual, if he resides within five miles of the custom-house of the port of registry, this declaration must be made in the presence of the registrar; but if beyond that distance, in the presence of any registrar, or of any justice of the peace; and in the case of a body corporate, the declaration must be made in the presence of the registrar of the port of registry (§ 56).

Every bill of sale for the transfer of any registered ship, or of any share therein, must be produced, when duly executed, to the registrar of the port at which the ship is registered, with the foresaid *declaration* required to be made by the transferee. Thereupon the

registrar enters in the register-book the name of the transferee as owner of the ship or share comprised in the bill of sale, and indorses on the bill of sale the fact of that entry having been made, with the date and hour thereof. All bills of sale of any ship or shares in a ship are entered in the register-book in the order of their production to the registrar (§ 57).

Whenever any change takes place in the registered ownership of a ship, then, if that change occurs at a time when the ship is at her port of registry, the master must forthwith deliver the certificate of registry to the registrar, who indorses thereon a memorandum of the change; but, if the change occurs during the absence of the ship from her port of registry, then, upon her first return to that port, the master must deliver the certificate of registry to the registrar, and he indorses thereon a like memorandum of the change. Or, if she previously arrives at any port where there is a *British* registrar, he, upon being advised by the registrar of her port of registry of the change having taken place, indorses a like memorandum thereof on the certificate of registry; and, for that purpose, he can require the certificate to be delivered to him, so that the ship be not thereby detained. Any master who fails to deliver to the registrar the certificate of registry as above required, incurs a penalty not exceeding £100 (§ 45).

(2.) Transmissions.—If the property in a ship, or in any share therein, becomes transmitted in consequence of the death, bankruptcy, or insolvency of any registered owner, or in consequence of the marriage of any female registered owner, or by any lawful means other than by transfer according to the provisions of the Merchant Shipping Act, these transmissions must be authenticated by a declaration of the person to whom the property has been transmitted, made in the form H in the schedule annexed to the act, and containing the several particulars required to be contained in the declaration of a transferee, or as near thereto as circumstances permit, and, in addition, a statement describing the manner in which, and the person to whom, the property has been transmitted. If the declarant resides at, or within, five miles of the custom-house of the port of registry, this declaration must be made and subscribed in the presence of the registrar; but, if beyond that distance, in the presence of any registrar, or of any justice of the peace (§ 58).

If this transmission has taken place by virtue of the bankruptcy or insolvency of any registered owner, the said declaration must be accompanied by such evidence as may, for the time being, be receivable in courts of justice as proof of the title of the person claiming under any bankruptcy or insolvency. If the transmission has taken place by virtue of the marriage of a female owner, the said declara-

tion must be accompanied by a copy of the register of the marriage, or other legal evidence of the celebration thereof, and must declare the identity of the female owner; and, if the transmission has taken place by virtue of any testamentary instrument, or by intestacy, then, in England, Wales, and Ireland, the said declaration must be accompanied by the probate of the will, or the letters of administration, or an official extract therefrom; and, in Scotland, or in any British possession, by the will, or any copy thereof, that may be evidence by the laws of Scotland, or of such possession, or by letters of administration, or any copy thereof, or by such other document as may, by the laws of Scotland, or of such possession, be receivable by the courts of judicature thereof, as proof of the person entitled upon an intestacy (§ 59).

Upon receipt of the declaration so accompanied as aforesaid, the registrar enters the name of the person or persons entitled under such transmission in the register-book as owner or owners of the ship or share therein, in respect of which the transmission has taken place; and if more than one, these persons, however numerous, are considered as one person only, as regards the rule before mentioned, relating to the number of persons entitled to be registered as owners (§ 60).

Whenever any property in a ship or share of any ship becomes vested,—by transmission on the death of any owner, or on the marriage of any female owner,—in any person not qualified to be the owner of British ships, if the ship is registered in England or Ireland, it is lawful for the Court of Chancery,—if in Scotland, for the Court of Session,—or if in any British possession, for any court possessing the principal civil jurisdiction within such possession,—upon an application made by or on behalf of the unqualified person, to order a sale to be made of the property so transmitted, and to direct the proceeds of the sale, after deducting the expense thereof, to be paid to the person entitled under such transmission, or otherwise as the court may direct. It is in the discretion of the court to make or refuse any such order for sale, and to annex thereto any terms or conditions, and to require any evidence in support of the application it may think fit, and generally to act in the premises in such manner as the justice of the case requires (§ 62).

Every order for a sale made by a court, as aforesaid, must contain a declaration vesting the right to transfer the ship or share so to be sold in some person or persons named by the court, and thereupon the nominee or nominees are entitled to transfer such ship or share, in the same manner, and to the same extent, as if he or they were the registered owner or owners of the same. Every registrar must obey the requisition of such nominee or nominees in respect of any transfer, to the same extent as he would be compellable

to obey the requisition of any registered owner or owners of such ship or share (§ 63).

Every application for sale must be made within four weeks after the occurrence of the event on which the transmission has taken place, or within such further time as the court may allow;—this further time not to exceed, in any case, one year from the date of that occurrence. And in the event of no such application being made within the foresaid period, or of the court refusing to accede thereto, the ship or share so transmitted is forfeited in the same manner as before mentioned, with respect to interests acquired by unqualified owners in ships using a *British* flag and assuming the *British* character (§ 64).

It is lawful, in England and Ireland, for the Court of Chancery,—in Scotland, for the Court of Session,—and in any British possession, for the court possessing the principal jurisdiction within such possession, without prejudice to any other power the court may possess,—upon the summary application of any interested person, made either by petition or otherwise, and either *ex parte* or upon service of notice on any other person, as the court may direct,—to issue an order prohibiting, for a time to be named in that order, any dealing with such ship or share. It is in the power of the court to make or refuse any such order, and to annex thereto any terms or conditions it may think fit, and to discharge such order when granted, with or without costs, and generally to act in the premises in such manner as the justice of the case requires. Every registrar, without being made a party to the proceedings, upon being served with such order, or a copy thereof, must obey the same (§ 65).

MORTGAGES.—A registered ship, or share therein, may be made a security for a loan or other valuable consideration; and the instrument creating this security, termed in the Merchant Shipping Act a mortgage, must be in the form I in the schedule annexed to that act, or as near thereto as circumstances permit. On the production of an instrument of mortgage, the registrar of the port at which the ship is registered must record the same in the register-book (§ 66). Every such mortgage is recorded by the register in the order of time in which the same is produced to him for that purpose; and, by memorandum under his hand, the registrar notifies on the instrument of mortgage that the same has been recorded by him, stating the date and hour of such record (§ 67). If there is more than one mortgage registered of the same ship or share therein, the mortgagees are entitled, notwithstanding any express, implied, or constructive notice in priority, one over the other, according to the date at which such instrument is recorded, and not according to the date *of each instrument itself (§ 69).*

A mortgagee is not, by reason of his mortgage, deemed to be the owner of a ship or any share therein, nor is the mortgagor deemed to have ceased to be owner of the mortgaged ship or share, except in so far as may be necessary for making such ship or share available as a security for the mortgage (§ 70). Every registered mortgagee has power absolutely to dispose of the ship or share in respect of which he is registered, and to give effectual receipts for the purchase money. But if there are more persons than one registered as mortgagees of the same ship or share, no subsequent mortgagee can, without the concurrence of every prior mortgagee, sell such ship or share, except under the order of some court capable of taking cognisance of such matters (§ 71).

No registered mortgage of any ship, or share therein, is affected by any act of bankruptcy,* committed by the mortgagor, after the date of the record of that mortgage, notwithstanding the mortgagor may, at the time of his becoming bankrupt, have in his possession and disposition, and be reputed owner of such ship, or share thereof; and such mortgage is preferred to any right, claim, or interest in that ship, or any share thereof, which may belong to the assignees † of the bankrupt (§ 72).

Whenever any registered mortgage has been discharged, on production of the mortgage deed, with a receipt for the mortgage money indorsed thereon, duly signed and attested, the registrar makes an entry in the register-book, to the effect that the mortgage has been discharged; and, upon this entry being made, the estate, if any, which passed to the mortgagee, vests in the same person or persons, in whom, having regard to intervening acts and circumstances, if any, the same would have vested if no such mortgage had ever been made (§ 68).

A registered mortgage of a ship, or share in a ship, can be transferred to any person, and the instrument creating the transfer must be in the form K in the schedule annexed to the act; and on the production of this instrument, the registrar enters in the register-book, the name of the transferee or mortgagee of the ship, or shares therein mentioned, and, by memorandum under his hand, he records on the instrument of transfer, that the same has been recorded by him, stating the date and hour of such record (§ 73).

If the interest of a mortgage in any ship, or in any share therein, becomes transmitted in consequence of death, bankruptcy, or insolvency, or in consequence of the marriage of any female mortgagee,

* Certain acts done, or permitted to be done, by or against a trader, which render him a bankrupt in the eye of the law, and which acts are enumerated in the English Bankrupt *statute, 12 and 13* Vict., c. 106, § 67–§ 86.

† *Parties chosen* by the creditors in whom the bankrupt's estate is vested.

or by any lawful means, other than by a transfer according to the provisions of the Merchant Shipping Act,—this transmission must be authenticated by a declaration of the party to whom the interest has been transmitted, made in the form L in the schedule annexed to the act, and containing a statement describing the manner in which, and the party to whom, the property has been transmitted. If the declarant resides at, or within, five miles of the custom-house of the port of registry, this declaration must be made and subscribed in the presence of the registrar, but, if beyond that distance, in the presence of any registrar, or of any justice of the peace, and must be accompanied by such evidence as is before required to authenticate a corresponding transmission of property from one registered owner to another (§ 74).

Upon the receipt of this declaration, and the production of such evidence as aforesaid, the registrar enters the name of the person or persons entitled under that transmission, in the register-book, as mortgagee or mortgagees of the ship, or share, in respect of which such transmission has taken place (§ 75).

CERTIFICATES OF MORTGAGE AND SALE.—If any registered owner is desirous of disposing, by way of mortgage or sale, of the ship, or share, in respect of which he is registered, *at any place out of the country or possession in which her port of registry is situate*, he can apply to the registrar, who, thereupon, enables him to do so, by granting the certificates as aftermentioned, called respectively "Certificates of Mortgage," or "Certificates of Sale," according as they purport to give a power to mortgage, or a power to sell (§ 76).

Previously to any certificate of mortgage or sale being granted, applicant must state to the registrar, to be by him entered in the register-book, the following particulars:—

(1.) The names of the persons by whom the power mentioned in the certificate is to be exercised, and, in the case of a mortgage, the *maximum* amount of charge to be created, if it is intended to fix any such *maximum*; and, in the case of a sale, the *minimum* price at which a sale is to be made, if it is intended to fix any such *minimum:*

(2.) The specific place or places where this power is to be exercised, or, if no place be specified, then, that it may be exercised any where, subject to the provisions aftermentioned:

(3.) The limit of time within which this power may be exercised (§ 77).

No certificate of mortgage or sale can be granted, so as to authorise any mortgage or sale to be made, at any place within the United Kingdom, if the ship's port of registry is in the United Kingdom, or

at any place within the same British possession, if the port of registry is within a British possession, or by any person not named in the certificate (§ 78).

Certificates of mortgage and sale are respectively in the forms M and N in the schedule annexed to the act, and contain a statement of the foregoing particulars directed to be entered in the register-book, and, in addition thereto, an enumeration of any registered mortgages or certificates of mortgage or sale affecting the ships, or shares, in respect of which these certificates are given (§ 79).

The following rules must be observed as to certificates of mortgage:—

(1.) The power must be exercised in conformity with the directions contained in the certificate:

(2.) A record of every mortgage made thereunder must be indorsed thereon by the registrar, or British consular officer:

(3.) No mortgage, *bonâ fide* made thereunder, can be impeached by reason of the party by whom the power was given, dying before the making of the mortgage:

(4.) Whenever the certificate contains a specification of the place or places at which, and a limit of time (not exceeding twelve months) within which the power is to be exercised, no mortgage *bonâ fide* made to a mortgagee without notice, can be impeached by reason of the bankruptcy or insolvency of the person by whom the power was given:

(5.) Every mortgage so registered as aforesaid on the certificate, has priority over all mortgages of the same ship, or share, created subsequently to the date of the entry of the certificate in the register-book; and if there are more mortgages than one so indorsed, the respective mortgagees claiming thereunder, notwithstanding any express, implied, or constructive notice, are entitled one before the other, according to the date at which a record of each instrument is indorsed on the certificate, and not according to the date of the instrument creating the mortgage:

(6.) Subject to the foregoing rules, every mortgagee whose mortgage is registered on the certificate, has the same rights and powers, and is subject to the same liabilities, as he would have had, and been subject to, if his mortgage had been registered in the register-book instead of on the certificate:

(7.) The discharge of any mortgage so registered on the certificate, can be indorsed thereon by any registrar or British consular officer, upon the production of such evidence as is required by the act to be produced to the registrar on the entry of a discharge of a mortgage in the register-book; and, upon such indorsement being made, the estate, if any, which passed to the mortgagee, vests in

the same person or persons in whom the same would,—having regard to intervening acts and circumstances, (if any),—have vested if no such mortgage had been made:

(8.) Upon the delivery of any certificate of mortgage to the registrar by whom it was granted,—he, after recording in the register-book, in such manner as to preserve its priority,—any unsatisfied mortgage registered thereon, cancels such certificate, and enters the fact of the cancellation in the register-book; and every certificate so cancelled is void to all intents (§ 80).

The following rules must be observed as to certificates of sale:—

(1.) No such certificate can be granted except for the sale of an entire ship:

(2.) The power must be exercised in conformity with the directions contained in the certificate:

(3.) No sale *bonâ fide* made to a purchaser for a valuable consideration, can be impeached by reason of the person by whom the power was given, dying before the making of such sale:

(4.) Whenever the certificate contains a specification of the place or places at which, and a limit of time (not exceeding twelve months) within which the power is to be exercised,—no sale *bonâ fide* made to a purchaser for a valuable consideration without notice, can be impeached by reason of the bankruptcy or insolvency of the person by whom the power was given:

(5.) Any transfer made to a person qualified to be the owner of British ships, must be by bill of sale in the form before mentioned, or as near thereto as circumstances permit:

(6.) If the ship is sold to a party qualified to hold British ships, the ship must be registered anew; but notice of all mortgages enumerated on the certificate of sale must be entered in the register-book:

(7.) Previously to such registry anew, there must be produced to the registrar required to make the same the bill of sale by which the ship is transferred, the certificate of sale, and the certificate of registry of the ship:

(8.) The last-mentioned registrar retains the certificates of sale and registry,—and, after having indorsed on both these instruments an entry of the fact of a sale having taken place, he forwards the certificates to the registrar of the port appearing on them to be the former port of registry of the ship,—and, thereupon, this last-mentioned registrar makes a memorandum of the sale in his register-book, and the registry of the ship in that book is considered as closed,—except, as far as relates to any unsatisfied mortgages, or existing certificates of mortgage entered therein:

(9.) On this registry anew, the description of the ship contained

in her original certificate of registry can be transferred to the new register-book, without her being re-surveyed, and the declaration to be made by the purchaser is the same as would require to be made by any ordinary transferee:

(10.) If the ship is sold to a party not qualified to be the owner of a British ship, the bill of sale by which the ship is transferred, the certificate of sale, and the certificate of registry, must be produced to some registrar or consular officer, who retains the certificates of sale and registry,—and, having indorsed thereon the fact of the ship having been sold to persons not qualified to be owners of British ships, he forwards these certificates to the registrar of the port appearing on the certificate of registry to be the port of registry of that ship; and, thereupon, this last-mentioned registrar makes a memorandum of the sale in his register-book, and the registry of the ship in that book is considered as closed,—except so far as relates to any unsatisfied mortgages or existing certificates of mortgage entered therein:

(11.) If, upon a sale being made to an unqualified person, any default is made in the production of these certificates as mentioned in the last rule, that unqualified person is considered, by British law, as having acquired no title to nor interest in the ship; and, further, the party upon whose application the certificate was granted, and the persons exercising the power, each incurs a penalty not exceeding £100:

(12.) If no sale is made in conformity with the certificate of sale, that certificate must be delivered to the registrar, by whom the same was granted,—and, thereupon, that registrar cancels it, and enters the fact of this cancellation in the register-book; and every certificate so cancelled, is void to all intents (§ 581).

Upon proof, at any time, to the satisfaction of the Commissioners of Customs, that any certificate of mortgage or sale is lost, or so obliterated as to be useless, and that the powers thereby given have never been exercised, or, if they have been exercised,—then, upon proof of the several matters and things that have been done thereunder, it is lawful for the registrar, with the sanction of the commissioners, as circumstances may require, either to issue a new certificate, or to direct such entries to be made in the register-book, or such other matter or thing to be done, as might have been made or done, if no such loss or obliteration had taken place (§ 82).

The registered owner for the time being, of any ship or share therein, in respect of which a certificate of mortgage or sale has been granted, specifying the place or places where the power thereby given is to be exercised,—can, by an instrument under his hand, in *the form O* in the schedule annexed to the act, or as near thereto as

circumstances permit, authorise the registrar, by whom that certificate was granted, to give notice to the registrar or consular officer, registrars or consular officers, at such place or places, that this certificate is revoked, and notice must be given accordingly. All registrars or consular officers receiving such notice, must record the same, and exhibit the same to all persons who may apply to them for the purpose of effecting or obtaining a mortgage or transfer under the said certificate of mortgage or sale; and, after such notice has been so recorded, the said certificate, so far as concerns any mortgage or sale to be made at that place, is deemed to be revoked, and of no effect; and every registrar or consular officer recording any such notice, must thereupon state to the registrar, by whom the certificate was granted, whether any previous exercise of the power to which the certificate refers, has taken place (§ 83).

Registry Anew and Transfer of Registry.—(1.) *Registry anew.*—When any registered ship is so altered as not to correspond with the particulars relating to her tonnage or description contained in her register-book, then, if this alteration is made at a port where is a registrar, the registrar of that port; but if made elsewhere, the registrar of the first port having a registrar at which the ship arrives after her alteration, must on application made to him, and on the receipt of a certificate from the proper surveyor specifying the nature of the alteration, either retain the old certificate of registry and grant a new certificate of registry, containing a description of the ship as altered, or indorse on the existing certificate a memorandum of such alteration, and subscribe his name to this indorsement. If the registrar to whom this application is made, is the registrar of the ship's port of registry, he himself enters in his register-book the particulars of the alteration so made, and the fact of such new certificate being granted or indorsement having been made on the existing certificate; but, if he is not this last-mentioned registrar, he forthwith reports these particulars and facts as aforesaid, accompanied by the old certificate of registry, in cases where a new one has been granted, to the registrar of the ship's port of registry, who retains this old certificate (if any), and enters such particulars and facts in his register-book accordingly (§ 24).

When the registrar to whom application is made in respect of any such alteration as aforesaid is the registrar of the port of registry, he can, if he thinks fit, instead of registering the alteration, require the ship to be registered anew, in manner before directed on the first registry of a ship; but, if he is not the registrar as now mentioned, he can, nevertheless, require such ship to be registered anew. But, in this last-mentioned case, he grants a provisional certificate, or makes a provisional indorsement of the alteration, in manner before

directed in cases where no registry anew is required, taking care to add to that certificate or indorsement a statement that the same is made provisionally, and to insert in his report to the registrar of the ship's port of registry, a like statement (§ 85). Within ten days after the subsequent arrival of the ship at her port of discharge in the United Kingdom, if registered in the United Kingdom, or, if registered elsewhere, at her port of discharge in the British possession within which her port of registry is situate,—every such provisional certificate or certificate provisionally indorsed must be delivered up to the registrar thereof, who thereupon causes the ship to be registered anew, in the same manner in all respects as is required on the first registry of any ship (§ 86).

On failure of this registry anew of any ship, or registry of alteration of any ship so altered as aforesaid, that ship is deemed not duly registered, and is to be no longer recognised as a British ship (§ 87).

If, upon any change of ownership in a ship, the owner or owners desire to have that ship registered anew, though this registry anew is not required by the Merchant Shipping Act, it is lawful for the registrar of the port at which she is already registered, on the delivery up to him of the existing certificate of registry, and on the other requisites to registry, or such of them as the registrar thinks material, being duly complied with, to make such registry anew, and grant a certificate thereof (§ 88).

(2.) *Transfer of Registry.*—The registry of any ship can be transferred from one port to another, upon the application of all parties appearing on the register to be interested in that ship, whether as owners or mortgagees, this application being expressed by a declaration in writing made and subscribed,—if the party so required to make and subscribe the same resides at or within five miles of the custom-house of the port from which she is to be transferred, in the presence of the registrar of that port,—but if beyond that distance, in the presence of any registrar or of any justice of the peace. Upon this application being so made, and upon the delivery to him of the certificate of registry, the registrar of the port at which the ship is already registered, transmits to the registrar of the port at which the ship is intended to be registered, notice of such application having been made to him, together with a true copy of all particulars relating to that ship, and the names of all the parties appearing by his book to be interested as owners or mortgagees in the ship. Upon the receipt of this notice, the last-mentioned registrar enters in his book of registry all these particulars and names, and grants a fresh certificate of registry, and thenceforth that ship is considered as registered at and belonging to the last-

mentioned port, and the name of this last-mentioned port must be substituted on the stern of the ship in lieu of the name of the port previously appearing thereon (§ 90).

The transfer of the registry of a ship, as now mentioned, does not in any way affect the rights of the several parties interested in that ship, either as owners or mortgagees; but these rights are maintained and continued in all respects in the same manner as if no such transfer had been effected (§ 91).

REGISTRY, MISCELLANEOUS.—Whenever, in any case in which, under the second part of the Merchant Shipping Act, a person is required to make a declaration on behalf of himself or of any body corporate, or any evidence is required to be produced to the registrar,—it is shewn to the satisfaction of the registrar, that, from any reasonable cause, such person is unable to make the declaration, or that such evidence cannot be produced,—it is lawful for the registrar, with the sanction of the Commissioners of Customs, and upon the production of such other evidence, and subject to such terms as they may think fit, to dispense with any such declaration or evidence (§ 97).

Whenever it appears to the Commissioners of Customs, or to the governor, or other person, administering the government of any British possession, that, by reason of special circumstances, it may be desirable that permission should be granted to a British ship to pass, without being previously registered, from one port or place in her Majesty's dominions to another port or place within the same, it is lawful for the commissioners or governor, or other person, to grant a pass accordingly; and for the time, and within the limits therein mentioned, this pass has the same effect as a certificate of registry (§ 98).

If, by reason of infancy, lunacy, or other inability, any person interested in any ship, or share therein, is incapable of making any declaration, or doing anything required or permitted by the Merchant Shipping Act, to be made or done by such incapable person in registry, then the guardian or committee, if any, of the incapable person, or, if there be none, any person appointed by any court or judge possessing jurisdiction in respect of the property of incapable persons, upon the petition of any person on behalf of such incapable person, or of any other person interested in making such declaration, or doing such thing, can make such declaration, or a declaration as nearly corresponding thereto as circumstances will permit, and can do such thing in the name and on behalf of the incapable person. All acts done by such substitute are declared, by the act, to be as effectual as if done by the person for whom he is substituted (§ 99).

Whenever any person is beneficially interested, otherwise than by way of mortgage, in any ship, or share therein, registered in the name of some other person as owner, the person so interested, as well as the registered owner, is subject to all pecuniary penalties imposed by the Merchant Shipping Act, or by any other act, on owners of ships, or shares therein; but, nevertheless, proceedings can be taken for the enforcement of these pecuniary penalties, against both or either of the parties before mentioned, with or without joining the other of them (§ 100).

Every register of, or declaration made in pursuance of the second part of the Merchant Shipping Act, in respect of any British ship, can be proved in any court of justice, or before any person having, by law, or by consent of parties, authority to receive evidence, either by the production of the original, or by an examined copy thereof, or by a copy thereof purporting to be certified under the hand of the registrar, or other person having the charge of the original, which certified copies he is required to furnish to any person applying for the same at a reasonable time, upon payment of one shilling for each copy so certified (§ 107).

Every such register, or copy of a register, and also every certificate of registry of any British ship, purporting to be signed by the registrar, or other proper officer, is to be received in evidence in any court of justice, or before any person having, by law or by consent of parties, authority to receive evidence, as *primâ facie* (at first sight) proof of all the matters contained and recited in that register, when the register or copy is produced, and of all matters contained in, or indorsed on, such certificate of registry, and purporting to be authenticated by the signature of a registrar, when the certificate is produced (§ 107).

Any person who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any register-book, certificate of surveyor, certificate of registry, declaration of ownership, bill of sale, instrument of mortgage, certificate of mortgage or sale, or any entry or indorsement required by the second part of the Merchant Shipping Act, to be made in, or on, any of the before-mentioned documents, he, for every such offence, is deemed to be guilty of felony (§ 101).

The several forms required, or authorised to be used by the second part of the Merchant Shipping Act, and contained in the schedule annexed to the act, are supplied by the Commissioners of Customs to all the registrars within her Majesty's dominions, for distribution to the several persons requiring to use the same, either free of charge, or at such moderate prices, as they may from time to time direct,

and, with consent of the Board of Trade, the commissioners can, from time to time, make such alterations in these forms, as may be deemed requisite; but, before issuing any altered form, such public notice thereof is to be given, as may be necessary in order to prevent inconvenience. And, for the purpose of carrying into effect the provisions in the second part of the act, the commissioners can also, with consent foresaid, give such instructions as to the manner of making entries in the register-book, as to the execution and attestation of powers of attorney, as to any evidence to be required for identifying any person, and, generally, as to any act or thing to be done in pursuance of the second part of the act, as they may think fit (§ 96).

Boats for Seagoing Ships.—Excepting ships used solely as steam-tugs, and ships engaged in the whale-fishery, no decked ship must proceed to sea from any place in the United Kingdom, unless she is provided, according to her tonnage, with boats duly supplied with all requisites for use, and not being fewer in number, nor less in their cubic contents, than the boats, the number and cubic contents of which are specified in the table in schedule S, annexed to the Merchant Shipping Act; * and no ship carrying more than ten passengers must proceed to sea from any place in the United Kingdom, unless, in addition to the boats required as aforesaid, she is also provided with a *life-boat*, furnished with all requisites for use, or, unless one of her boats as before required is rendered buoyant after the manner of a life-boat; and no ship carrying more than ten passengers, must proceed to sea, unless she is also provided with two *life-buoys;* and this life-boat and these life-buoys must be kept so as to be at all times fit and ready for use. But these enactments with respect to boats and life-buoys do not apply to any case in which a certificate has been duly obtained in terms of § 10 of the Passengers' Act, 1852 (§ 292).

If any ship as before required to be provided with boats and life-buoys, proceeds to sea without being so provided, or, if any of these boats or life-buoys are lost or rendered unfit for service, in the course of the voyage, through the wilful fault or negligence of the owner or master,—or, if, in case any of these boats or life-buoys being accidentally lost or injured in the course of the voyage, the master wilfully neglects to replace or repair the same on the first opportunity,—or, if these boats and life-buoys are not kept so as to be, at all times, ready and fit for use, then, if the owner appears to be in fault, he incurs a penalty not exceeding £100; and, if the master appears to be in fault, he incurs a penalty not exceeding £50 (§ 293).

* See Appendix, Note J.

No officer of customs can grant a clearance or transire for any ship so required to be provided with boats or with life-buoys, unless that ship is duly so provided; and if any such ship attempts to go to sea without this clearance or transire, any customs officer can detain her until she is so provided (§ 293).

LIGHTS AND FOG-SIGNALS, AND RULES FOR MEETING AND PASSING. —The following rules must be observed with regard to lights and fog-signals:—

(1.) From time to time, the Admiralty make regulations requiring the exhibition of such lights, by such classes of ships, whether steam or sailing, within such places, and under such circumstances, as they think fit,—and can, from time to time, revoke, alter, or vary the same:

(2.) If the Admiralty think fit, they can make regulations requiring the use of such fog-signals by such classes of ships, whether steam or sailing, within such places, and under such circumstances, as they think fit,—and can, from time to time, revoke, alter, or vary the same:

(3.) All regulations made in pursuance of this section, are published in the *London Gazette*, and come into operation on a day to be named in the *Gazette* in which they are published; and the Admiralty cause all the regulations to be printed, and furnish a copy thereof to any owner or master who apply for the same:

(4.) All owners and masters are bound to take notice of the same,—and, so long as these regulations continue in force, must exhibit such lights, and use such fog-signals, at such times, within such places, in such manner, and under such circumstances, as are enjoined by these regulations,—and must not exhibit any other lights, or use any other fog-signals. In case of default, the master or the owner, if he was in fault, incurs, for each occasion upon which these regulations are infringed, a penalty not exceeding £20 (§ 295).*

Whenever any ship,—whether steam or sailing, proceeding in one direction, meets another ship,—whether steam or sailing, proceeding in another direction,—so that, if both ships were to continue their respective courses, they would pass so near as to involve any risk of a collision, the helms of both ships must be put to port, so as to pass on the port side of each other; and this rule must be obeyed by all steam-ships, and by all sailing ships, whether on the port or starboard tack, and whether closehauled or not, unless the circumstances of the case are such as to render a departure from the rule necessary, in order to avoid immediate danger,—and provided that due regard be had to the dangers of navigation; and, as regards sailing ships on the starboard tack closehauled, to the keep-

* See Appendix, Note K.

ing such ships under command (§ 296). Every steam-ship, when navigating any narrow channel, must, whenever it is safe and practicable, keep to that side of the fair-way or mid-channel which lies on the starboard side of that steam-ship (§ 297).

If, in any case of collision, it appears that this collision was occasioned by the non-observance of any rule for the exhibition of lights, or the use of fog-signals, issued in pursuance of the powers before mentioned, or of the foregoing rule as to the passing of steam and sailing ships, or of the foregoing rule as to a steam-ship keeping to that side of a narrow channel which lies on the starboard side,—the owner of the ship by which the rule has been infringed, is not entitled to recover any recompense whatever for any damage sustained by his ship in that collision, unless it is shewn that the circumstances of the case made a departure from the rule necessary (§ 298).

In case any damage to person or property arises from the non-observance of any of the foregoing rules, this damage is deemed to have been occasioned by the default of the person in charge of the deck of the damage-doing ship at the time, unless it is shewn that the circumstances of the case rendered a departure from the rule necessary (§ 299).

Build and Equipment of Steam-Ships.—The following rules must be observed with respect to the build of *iron* steam-ships:—

(1.) Every ship built of iron, of 100 tons or upwards, the building of which commenced after 28th August 1846,—and every steam-ship, built of iron, of less burden than 100 tons, the building of which commenced after 7th August 1851, (except ships used solely as steam-tugs)—must be divided by substantial transverse (across) water-tight partitions, so that the forepart of the ship must be separated from the engine-room by one of these partitions, and so that the afterpart must be separated from the engine-room by another of these partitions:

(2.) Every steam-ship built of iron, the building of which commenced after the passing of the Merchant Shipping Act (10th August 1854), must be divided by such partitions as aforesaid, into not less than three equal parts, or as nearly so as circumstances permit:

(3.) In these last-mentioned ships, each partition as aforesaid must be of equal strength with the side-plates of the ship with which it is in contact:

(4.) Every screw steam-ship built of iron, the building of which commenced after the passing of the act, must, in addition to the above partitions, be fitted with a small water-tight compartment, enclosing the after extremity of the shaft.

No officer of customs or other person can grant a clearance or transire, for any iron steam-ship, required to be divided or fitted as aforesaid, unless the same is so divided and fitted; and, if any iron steam-ship attempts to go to sea without this clearance or transire, any customs' officer can detain her until she is so divided and fitted. If any steam-ship, before required to be so divided and fitted, plies or goes to sea without being so divided or fitted, the owner incurs a penalty not exceeding £100 (§ 300).

Every steam-ship must be provided as follows:—

(1.) Every steam-ship, of which a survey is required by the act, (see chap. ii., Passenger Steamers), must be prepared with a safety-valve upon each boiler, so constructed as to be out of the control of the engineer when the steam is up; and, if this valve is in addition to the ordinary valve, it must be so constructed as to have an area not less, and a pressure not greater, than the area of, and pressure on, that valve:

(2.) Every seagoing steam-ship employed to carry passengers, must have her compasses properly adjusted from time to time; this adjustment, in the case of ships surveyed as before mentioned, being made to the satisfaction of the shipwright surveyor, and according to the regulations issued by the Board of Trade:

(3.) Every seagoing steam-ship (unless used solely as a steam-tug) must be provided with a hose adapted for the purpose of extinguishing fire in any part of the ship, and capable of being connected with the engines:

(4.) Every seagoing steam-ship employed to carry passengers, must be provided with the following means of making signals of distress, viz.:—twelve blue-lights or twelve port-fires, and one cannon with ammunition for twelve charges; or, in the discretion of the master or owner, with such other means of making signals (if any) as have been previously approved of by the Board of Trade:

(5.) Every home-trade steam-ship employed to carry passengers by sea, must be provided with such shelter for the protection of deck passengers (if any) as the Board of Trade—having regard to the nature of the passage, the number of deck passengers to be carried, the season of the year, the safety of the ship, and the circumstances of the case—may require. And, if any such home-trade steam-ship so employed to carry passengers by sea, plies, or goes to sea from any port in the United Kingdom, without being so provided as before required, then, for each default in any of the above requisites, the owner (if he is in fault) incurs a penalty not exceeding £100, and the master (if he is in fault) incurs a penalty not exceeding £50 (§ 301).

If any person places an undue weight on the safety-valve of any steam-ship, or, in the case of surveyed steam-ships, increases such weight beyond the limits fixed by the engineer-surveyor, he, in addition to any other liabilities he may incur by so doing, incurs a penalty not exceeding £100 (§ 302).

CHAPTER II.

Examinations and certificates for masters and mates.—(1.) *Certificates of competency.* (2.) *Certificates of service.*—Pilotage certificates—Official logs—Customs duties.—1. The coasting trade—2. Exportation—3. Importation—4. Boarding of ships by customs officers—5. Trade with British possessions abroad—6. Carriage of passengers by sea.

EXAMINATIONS AND CERTIFICATES.—(1.) *Certificates of Competency.*—Examinations are instituted for persons who intend becoming masters or mates of foreign-going ships, *i. e.*, ships employed in trading or going between some place or places in the United Kingdom, and some place or places beyond the limits of the United Kingdom, the islands of Guernsey, Jersey, Sark, Alderney, and Man, and the continent of Europe, between the River Elbe and Brest, inclusive; or of home-trade passenger ships, *i. e.* every home-trade ship employed in carrying passengers, or who wish to procure certificates of competency as now to be mentioned. Subject as after mentioned, the local marine boards provide for the examinations at their respective ports, and can appoint, and from time to time remove, examiners to conduct these examinations, and can regulate the same. Any members of the local marine board where the examination is held, may be present and assist at any such examination (17 and 18 Vict., cap. 104, § 131).

The Board of Trade can, from time to time, lay down rules as to the conduct of these examinations, and as to the qualifications of the applicants, and these rules must be strictly adhered to. No examiner can be appointed unless he possesses a certificate of qualification, from time to time granted or renewed by the Board of Trade; and the sanction of that board is necessary, so far as regards the number of examiners to be appointed, and the amount of their remuneration. The Board of Trade can, at any time, depute any of its officers to be present and assist at any examination; and if it appears to the board, that the examinations for any two or more ports can be conducted without inconvenience by the same examiners, it can require the local marine board of such ports to act

together as one board, in providing for, and regulating examinations and appointing and removing examiners for these ports (§ 132).

Subject to the proviso now to be mentioned, the Board of Trade delivers to every applicant, who is reported to have passed the examination satisfactorily, and to have given satisfactory evidence of his sobriety, experience, ability, and general good conduct on board ship, a certificate called a "Certificate of Competency," to the effect, that he is competent to act as master, or as first, second, or only mate, of a foreign-going ship, or as master or mate of a home-trade passenger ship, as the case may be. But, in every case in which the Board of Trade has reason to believe that this report has been unduly made, the board can remit the case either to the same or to other examiners, and can require a re-examination of the applicant, or a further inquiry into his testimonials and character, before granting him a certificate (§ 134).

All applicants for examination must pay to such persons as the Board of Trade appoints for that purpose, such fees—not exceeding the sums in table R in the schedule annexed to the act—as the board directs (§ 133).

(2.) *Certificates of Service.*—Certificates of service, differing in form from certificates of competency, are granted as follows:—

1. Every person who, before 1st January 1851, served as master in the *British* merchant service, or who has attained, or attains the rank of lieutenant, master, passed-mate, or second-master, or any higher rank in the service of her Majesty, or of the East India Company, is entitled to a certificate of service as master for foreign-going ships:

2. Every person who, before 1st January 1851, served as mate in the British merchant service, is entitled to a certificate of service as mate for foreign-going ships:

3. Every person who, before 1st January 1854, has served as master of a home-trade passenger ship, is entitled to a certificate of service for home-trade ships:

4. Every person who, before 1st January 1854, has served as mate of a home-trade passenger ship, is entitled to a certificate of service as mate for home-trade passenger ships: and each of these certificates of service contains particulars of the name, place and time of birth, and of the length and nature of the previous service of the person to whom the same is delivered; and the Board of Trade delivers these certificates of service to the various persons so respectively entitled thereto, upon their proving themselves to have attained such rank, or to have served as aforesaid, and upon their giving a full and satisfactory account of the aforesaid particulars *(§ 135).*

No foreign-going ship, or home-trade passenger ship, must go to sea from any port in the United Kingdom, unless the master thereof, and, in the case of a foreign-going ship, the first and second-mate, or only mate (as the case may be), and, in the case of a home-trade passenger ship, the first or only mate (as the case may be), have obtained and possess valid certificates, either of competency or service, appropriate to their several stations in that ship, or of a higher grade; and no such ship, if of 100 tons burthen or upwards, must go to sea as aforesaid, unless at least one officer, besides the master, has obtained and possesses a valid certificate appropriate to the grade of only mate therein, or to a higher grade. Every person who, having been engaged to serve as master, or as first or second or only mate, of a foreign-going ship, or as master, or first or only mate, of a home-trade passenger ship, goes to sea as aforesaid, as such master or mate, without being at the time entitled to, and possessed of such certificate as before required, or who employs any person as master, &c., without ascertaining that he is at the time entitled to, and possessed of such certificate,—he incurs for each such offence a penalty not exceeding £50 (§ 136).

Every certificate of competency for a foreign-going ship is deemed to be of a higher grade than the corresponding certificate for a home-trade passenger ship, and entitles the lawful holder thereof to go to sea in the corresponding grade in the last-mentioned ship; but no certificate for a home-trade passenger ship, entitles the holder to go to sea as master or mate of a foreign-going ship (§ 137).

All certificates, whether of competency or service, are made in duplicate; and one part is delivered to the person entitled to the certificate; and the other is kept and recorded by the Registrar-General of Seamen, or by such other person as the Board of Trade appoints for that purpose. The board gives to the registrar or such other person, immediate notice of all orders made by it for cancelling, suspending, altering, or otherwise affecting any certificate, in terms of the powers in the Merchant Shipping Act; and thereupon the registrar or such other person makes a corresponding entry in the record of certificates. A copy, purporting to be certified by the registrar or his assistant, or such other person as aforesaid, of any certificate, is *primâ facie* evidence of such certificate; and a copy, purporting to be certified as aforesaid, of any entry made as aforesaid, is *primâ facie* evidence of the truth of the matter stated in such entry (§ 138).

Whenever any master or mate proves to the satisfaction of the Board of Trade that, without fault on his part, he has lost or been deprived of any certificate already granted to him, the board can, upon payment of such fee (if any) as it directs, cause a copy of the

certificate to which, by the record kept as aforesaid, he appears to be entitled, to be made out and certified as aforesaid, and to be delivered to him; and any copy, purporting to be so made and certified, has all the effect of the original (§ 139).

Every person who makes, or procures to be made, or assists in making, any false representation for the purpose of obtaining for himself or any other person, a certificate either of competency or service, or who forges, assists in forging, or procures to be forged, or who fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any such certificate, or any official copy of any such certificate, or who fraudulently makes use of any such certificate or any copy of such certificate which is forged, altered, cancelled, or suspended, or to which he is not justly entitled, or who fraudulently lends his certificate to, or allows it to be used by, any other person,—he, for each offence, is deemed guilty of a misdemeanor (§ 140).

PILOTAGE CERTIFICATES.—Upon giving due notice, and consenting to pay the usual expenses, any master or mate of any ship can apply to any pilotage authority, *i. e.*, any body or person authorised to appoint or license pilots, or to fix or alter rates of pilotage, or to exercise any jurisdiction in respect of pilotage,—to be examined as to his capacity to pilot the ship of which he is master or mate, or any one or more ships belonging to the same owner, within any part of the district over which that pilotage authority has jurisdiction; and if the pilotage authority thinks fit, that master or mate is thereupon to be examined. If found competent, a pilotage certificate is to be granted to him, containing his name, a specification of the ship or ships in respect of which he has been examined, and a description of the limits within which he is to pilot the same, these limits being within the jurisdiction of said pilotage authority. This certificate enables the person therein named to pilot the ship, or any of the ships therein specified, of which he is acting master or mate at the time, but no other, within the limits therein described, without incurring any penalties for the non-employment of a qualified pilot (§ 340). This pilotage certificate so granted, is not in force for more than one year, unless the same is renewed, which can be done from time to time, under the hand of the secretary or other proper officer of the pilotage authority by whom the certificate was granted (§ 341).

If, upon complaint to the Board of Trade, it appears to the board that any pilotage authority has, without reasonable cause, neglected to examine any master or mate who has applied to them for that purpose, or, after he has passed his examination, has, without reasonable cause, refused or neglected to grant him a pilotage certificate,

or that the examination of any such master or mate has been unfairly or improperly conducted, or that any terms imposed, or sought to be imposed, by such pilotage authority, are unfair or improper, or that any pilotage certificate granted by such authority has been improperly withdrawn,—if, in the judgment of the Board of Trade, the circumstances appear to require it, the board can appoint persons to examine that master or mate, and, if he is found competent, can grant him a pilotage certificate, containing the same particulars as would have been inserted in any certificate granted by the pilotage authorities as aforesaid, upon such terms and conditions, and subject to such regulations as the board thinks fit. This certificate has the same effect as if it had been granted by the pilotage authority as aforesaid, and it continues in force for one year, and can be renewed from year to year, either by the pilotage authority in manner before mentioned, or by the Board of Trade, if the board thinks fit; this renewal being indorsed upon the said certificate either by such person as the board may appoint for that purpose, or as before directed as to certificates granted by any pilotage authority (§ 343).

All masters or mates, to or for whom such a pilotage certificate as aforesaid is granted or renewed by any pilotage authority, must pay to that authority, or as it directs, such fees upon their respective certificates, and upon the renewals thereof, as are for that purpose fixed from time to time by that pilotage authority, with the consent of the Board of Trade. For any pilotage certificates granted or renewed by the Board of Trade, the masters or mates to or for whom these are so granted or renewed, must pay to the board, or as it directs, such fees upon their certificates, or the renewals thereof, as are fixed by the board,—so, nevertheless, that, in the case of pilotage certificates granted by the Board of Trade, these fees are in no case to be less than the fees payable by the qualified pilots in the same districts, upon their licences and the renewals thereof. In the case of certificates and renewals granted by pilotage authorities, these fees are applicable, either to paying the expense of the examinations, or any other general expenses connected with pilotage incurred by these authorities, or to the Pilots' Superannuation Fund of the district (if any), or otherwise for the benefit of the pilots appointed by these authorities, as they think fit. And in the case of pilotage certificates granted or renewed by the Board of Trade, these fees are applicable to the expense of the examinations, and any surplus is applied for the benefit of the qualified pilots of the port or district to which these certificates apply, in such manner as the board thinks fit (§ 343).

If it appears at any time to the Board of Trade, or to any pilotage authority, *that any* master or mate to whom a pilotage certifi-

cate has been granted by the board or that authority, has been guilty of misconduct, or has shewn himself incompetent to pilot his ship, the board or that authority (as the case may be) may thereupon withdraw his certificate, and thenceforth it ceases to be of any effect whatever (§ 343).

The master or mate of any ship carrying passengers between any place situate in the United Kingdom, or the islands of Guernsey, Jersey, Sark, Alderney, or Man, and any other place so situate, may apply to the Board of Trade for a certificate, and thereupon, and on satisfactory proof of his having continuously piloted any ship within the limits of any pilotage district, or of any part or parts thereof, for two years prior to the commencement of the Merchant Shipping Act (10th August 1854), or upon satisfactory proof, by examination of his competency, or otherwise, as it may deem expedient,—the Board of Trade can cause to be granted to him, or to be indorsed on any certificate of competency or service obtained by him under the sections before mentioned, a certificate to the effect that he is authorised to pilot any ship or ships belonging to the same owner, and of a draught of water not greater than such draught as may be specified in the certificate, within the limits aforesaid. This certificate remains in force for such time as the board directs, and enables the master or mate therein named to conduct the ship or ships therein specified within the limits therein described, to the same extent as if there had been no compulsion to employ a qualified pilot within these limits, but not farther or otherwise. Upon applying for this certificate, or any renewal thereof, every master or mate must pay to the Board of Trade, or as it directs, such fees, not exceeding the fees payable on an examination for a master's certificate of competency, as before mentioned, as the board directs (§ 355).

Official Logs.—The Board of Trade sanctions official log-books, different for different classes of ships, so that each form contains blanks for the entries after required, and an official log of every ship (except ships employed exclusively in trading between ports on the coasts of the United Kingdom) must be kept in the appropriate sanctioned form. This official log may, at the discretion of the master or owner, be either kept distinct from the ordinary ship's log, or united therewith,—so that, in all cases, all the blanks in the official log must be duly filled up (§ 280).

Every entry in this official log must be made as soon as possible after the occurrence to which it relates, and if not made on the same day as that occurrence, it must be made and dated so as to shew the date of the occurrence and of the entry respecting it. In *no case must* any entry in the official log, in respect of any occur-

rence happening previously to the arrival of the ship at her final port of discharge, be made more than twenty-four hours after that arrival (§ 281).

Every master of a ship for which an official log-book is required by the Merchant Shipping Act must make, or cause to be made therein, entries of the following matters:—

(1.) Every legal conviction of any member of his crew, and the punishment inflicted:

(2.) Every offence committed by any member of his crew, for which it is intended to prosecute, or to enforce a forfeiture, or to exact a fine, together with the statement concerning the reading over that entry, and concerning the reply, if any, made to the charge, as is required by § 244:

(3.) Every offence for which punishment is inflicted on board, and the punishment inflicted. See §§ 243–256:

(4.) A statement of the conduct, character, and qualifications of each of his crew, or a statement that he declines to give an opinion on such particulars. See § 176:

(5.) Every case of illness or injury happening to any member of the crew, with the nature thereof, and the medical treatment adopted, if any. See § 228:

(6.) Every case of death happening on board, and of the cause thereof. See § 228:

(7.) Every birth happening on board, with the sex of the infant, and the names of the parents:

(8.) Every marriage taking place on board, with the names and ages of the parties:

(9.) The name of every seaman or apprentice who ceases to be a member of the crew otherwise than by death, with the place, time, manner, and cause thereof:

(10.) The amount of wages due to any seaman who enters her Majesty's service during the voyage. See § 215:

(11.) The wages due to any seaman or apprentice who dies during the voyage, with the gross amount of all deductions to be made therefrom. See § 194:

(12.) The sale of the effects of any seaman or apprentice who dies during the voyage, including a statement of each article sold, and of the sum received for it. See § 194:

(13.) Every collision with any other ship, and the circumstances under which the same occurred. See §§ 296, 297, 298, 328 (§ 282):

The entries so required to be made in the official log-books must be signed as follows:—Every such entry must be signed by the master and by the mate, or some other of the crew; and every

entry of illness, injury, or death, must also be signed by the surgeon or medical practitioner on board (if any); every entry of wages due to, or of the sale of the effects of, any seaman or apprentice who dies must be signed by the master and by the mate, and some other member of the crew; and every entry of wages due to any seaman who enters her Majesty's service must be signed by the master and by the seaman, or by the officer authorised to receive the seaman into that service (§ 283).

The following offences in respect of official log-books are punishable as follows:—

(1.) If in any case, an official log-book is not kept in the manner required by the Merchant Shipping Act, or if any entry thereby directed to be made in that log-book, is not made at the time and in the manner thereby directed, the master incurs, for each offence, the specific penalty mentioned in the act in respect thereof; or, where there is no such specific penalty, a penalty not exceeding £5.

(2.) Every person who makes, or procures to be made, or assists in making, any entry in an official log-book, in respect of any occurrence happening previously to the arrival of the ship at her final port of discharge, more than twenty-four hours after that arrival, incurs, for each such offence, a penalty not exceeding £30.

(3.) Every person who wilfully destroys or mutilates, or renders illegible, any entry in an official log-book, or who wilfully makes, or procures to be made, or assists in making, any false or fraudulent entry or omission in that log-book,—he is deemed, for each such offence, guilty of a misdemeanor (§ 284).

All entries made in an official log-book, as directed by the Merchant Shipping Act, are to be received in evidence in any proceeding in any court of justice, subject to all just exceptions (§ 285).

In the case of foreign-going ships, the master must, within forty-eight hours after the ship's arrival at her final port of discharge in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver to the shipping master before whom the crew is discharged, the official log-book for the voyage. In the case of home-trade ships not exclusively employed in trading between ports on the coasts of the United Kingdom, the master or owner must, within twenty-one days after the 30th June and 31st December in every year, transmit or deliver to some shipping master in the United Kingdom, the official log-book for the preceding half year. Every master or owner who refuses or neglects to deliver his official log-book as here required, is subject to the same consequences and liabilities to which he is made subject by §§ 274 and 275, for the non-delivery of the list of his crew therein mentioned *(§ 286)*.

If, by reason of transfer of ownership or change of employment, a ship ceases to fall within the definition of a foreign-going or of a home-trade ship, if the ship is then in the United Kingdom, the master or owner must, within one month, and if she is elsewhere, within six months, deliver or transmit to the shipping master of the port to which she belonged, the official log-book (if any), duly made out to the time at which she ceased to be a foreign-going or home-trade ship, under a penalty not exceeding £10. If a ship is lost or abandoned, the master or owner must, if practicable, and as soon as possible, deliver or transmit to the shipping master of the port to which she belonged the official log-book (if any), duly made out to the time of the loss or abandonment, also under a penalty not exceeding £10 (§ 287).

See the following chapter as to the ENGAGEMENT, &c., OF SEAMEN.

CUSTOMS DUTIES.—1. *The Coasting Trade.*—By the Customs Consolidation Act, 1853, all trade by sea from any one part of the United Kingdom to any other part thereof, is deemed to be a coasting trade, and all ships while engaged therein are deemed to be coasting ships; and no part of the United Kingdom, however situate with regard to any other part, is deemed in law with reference to each other to be parts beyond the seas. If any doubt should arise at any time as to what, or to or from what parts of the United Kingdom is to be deemed a passage by sea, the Lords of the Treasury can determine and direct in what cases the trade by water, from one port or place of the United Kingdom to another of the same, is or is not to be deemed a trade by sea, within the meaning of the Customs Acts (16 and 17 Vict., c. 107, § 151). So that the term "coasting trade" in these acts is not the same as the term "home trade" in the Merchant Shipping Act, as before defined.

Foreign ships can now be employed in carrying goods or passengers coastwise from one part of the United Kingdom to another, or from the islands of Guernsey, Jersey, Alderney, Sark, or Man, to the United Kingdom, or from the United Kingdom to any of these islands, or from any one of them to any other of them, or from any part of any one of these islands to another part of the same; and foreign ships so employed are subject, as to stores for the use of the crew, and in all other respects, to the same laws, rules, and regulations to which British ships, when so employed, are subject; but neither foreign ships, nor goods carried in these ships, are subject, while so employed, to any higher or other rate of dock, pier, harbour, light, pilotage, tonnage, or other dues, duties, tolls, rates, or other charges whatsoever, or to any other rules as to the employment of pilots, or any other rules or restrictions whatsoever, than

British ships employed in like manner, or goods carried in these ships (§ 18 and 19 Vict., c. 96; §§ 13, 14).

No goods can be carried in any coasting ship, except such as are laden to be so carried at some port or place in the United Kingdom, and no goods can be laden on board any ship to be carried coastwise, until all goods brought in that ship from parts beyond seas have been unladen. If any goods are taken into or put out of any coasting ship at sea, or over the sea—or if any coasting ship touches at any place over the sea, or deviates from her voyage, unless forced by unavoidable circumstances—or if the master of any coasting ship, which has touched at any place over the sea, does not declare the same in writing, under his hand, to the collector or comptroller at the port in the United Kingdom, where his ship first afterwards arrives—the master of that ship forfeits the sum of £100 (16 and 17 Vict., c. 107, § 153).

If any goods are unshipped from any ship arriving coastwise, or are shipped or water-borne to be shipped to be carried coastwise, on Sundays or holidays, or unless in the presence or with the authority of the proper officer of the customs, or unless at those times or places appointed or approved by him, these goods are forfeited, and the master of the ship forfeits the sum of £50 (§ 154).

The master of every coasting ship must keep a cargo-book, stating the names of the ship, the master, and the port to which she belongs, and of the port to which she is bound on each voyage; and at every port of lading he must enter in this cargo-book the name of that port, and an account of all goods there taken on board his ship, stating the descriptions of the packages, and the quantities and descriptions of the goods therein, and the quantities and descriptions of any goods stowed loose, and the names of the respective shippers and consignees, so far as these particulars are known to him; and at every port of discharge of these goods, he must note the respective days on which the same or any of them are delivered out of his ship, and the respective times of departure from every port of lading, and of arrival at every port of discharge (§ 155).

This book the master must produce on demand, for the inspection of any officer of customs, who is at liberty to make any note or remark therein; and if, upon examination, any package entered in the cargo-book as containing foreign goods is found not to contain such goods, this package, with its contents, is forfeited; or if any package is found to contain foreign goods not entered in the cargo-book, these goods are forfeited. If the master fails correctly to keep this cargo-book, or to produce the same, or if at any time there are found on board any goods not entered in that book as *laden*, or any goods noted as delivered, or if any goods entered as

laden or any goods not noted as delivered, are not on board, the master forfeits the sum of £20 (§ 125).

Before any coasting ship can depart from the port of lading, an account, with a duplicate thereof, in the form given in the act, or to that effect, and signed by the master, must be delivered to the collector or comptroller; and the collector or comptroller retains the duplicate, and returns the original account, dated and signed by him. This account is the clearance of the ship for the voyage, and the transire or pass for the goods expressed therein; and if this account is false, the master forfeits the sum of £20. But, whenever it appears expedient, the Commissioners of Customs can permit general transires to be given, under such regulations as they may direct, for the lading and clearance, and for the entry and unlading of any coasting ship and goods; and the same can be revoked by notice in writing under the hand of the proper officer, delivered to the master or owner of the ship, or any of the crew on board (§ 156).

Within fourteen hours after the arrival of any coasting ship at her port of discharge, and before any goods are unladen, the transire, with the name of the place or wharf where the lading is to be discharged noted thereon, must be delivered to the collector or comptroller, who notes thereon the date of delivery; and if any of the goods on board are subject to any duty of excise, the same must not be unladen without the authority or permission of the proper officer of excise. If any goods on board any coasting ship arriving in Great Britain or Ireland from the Isle of Man, are the growth or produce of that isle, or manufacture of that isle from materials the growth or produce thereof, or from materials not subject to duty in Great Britain or Ireland, or from materials the duty on which has been paid and not drawn back in Great Britain or Ireland, the same must not be unladen, until a certificate is produced to the collector or comptroller from the collector or comptroller at the port of shipment, that proof had been made in manner required by law, that these are of such growth, produce, or manufacture, as the case may be (§ 157).

If any goods are unladen contrary to the foregoing enactments, the master forfeits the sum of £20, and if any goods are laden on board any ship in any port or place in the United Kingdom, and carried coastwise, or, having been brought coastwise, are unladen in any such port or place contrary to the Customs Consolidation Act, or any other act relating to the customs, these goods are forfeited (§ 157).

The collector or comptroller can require that all or any documents which ought to be on board a coasting ship shall be brought to him for inspection; and the master, refusing to produce such documents

on demand, or to bring the same to the collector or comptroller when required, forfeits and pays the sum of £20 (§ 158).

2. *Exportation.*—No person must export any warehoused goods, nor enter any such goods for exportation from the United Kingdom to parts beyond the seas, in any ship of less burthen than fifty tons, except to the islands of Guernsey and Jersey, in ships not being less than forty tons burthen, regularly trading to these islands (16 and 17 Vict., c. 107, § 117). And no goods must be shipped, put off, or water-borne to be shipped for exportation, except on days not being Sundays or holidays, nor from any place, except some legal quay, wharf, or other place duly appointed for that purpose, nor without the presence or authority of the proper officer of customs, nor before due entry outwards of the exporting ship, and due entry of these goods, nor before such goods have been duly cleared for shipment; and any goods shipped, put off, or water-borne to be shipped, contrary to this enactment, are forfeited (18 and 19 Vict., c. 96, § 9).

The master of every ship in which goods are to be exported from the United Kingdom to parts beyond the seas, or his agent, must, before any goods are taken on board, deliver to the collector or comptroller a certificate from the proper officer of the due clearance inwards or coastwise of his ship of her last voyage; and he must also deliver therewith an *entry outwards* of his ship, verified by his signature, in the form given in the Customs Consolidation Act, or to the same effect, and containing the several particulars thereby indicated or required. If the ship has commenced her lading at some other port, the master must deliver to the searcher the clearance of such goods from that other port; and if any goods are taken on board at any port before the ship is entered outwards at that port (unless a stiffening order, when necessary, is issued by the proper officer, to lade any heavy goods for exportation), the master forfeits the sum of £100 (16 and 17 Vict., c. 107, § 118).

The master of an exporting ship has, of course, nothing to do with the due entry and clearance at the custom-house of the *goods* for exportation, these being the duty of the exporter or his agent; but he should know that the shipping bill or bills (which it is also the duty of the exporter or his agent to furnish), when duly filled up and signed by the exporter or his agent, or the consignee of the ship, as the case may be, in such manner as the proper officer requires, and countersigned by the searcher,—these are the clearance for all the *goods* enumerated therein; and if any goods *which have been cleared for a drawback* are not duly exported to parts beyond the seas, or are unshipped or re-landed in any part of the United Kingdom (such goods not having been duly re-landed, discharged as

short-shipped, under care of the proper officers), or are carried to any of the Channel Islands, not having been duly entered, cleared, and shipped, to be exported or carried directly to these islands, the same are forfeited, together with any ship, boat, or craft used in so unshipping, re-landing, landing, or carrying such goods from the ship in which the same had been shipped for exportation; and the master and any person by whom or by whose orders or means these goods have been so unshipped, re-landed, landed, or carried, or who aids, assists, or is concerned therein, forfeit a sum equal to treble the value of the goods, or a penalty of £100, at the election of the commissioners (§ 133).

As to the shipping of stores for the use of foreign-bound ships, the Customs Consolidation Act enacts, that, upon application made by him, and upon such terms and conditions as the commissioners direct, the master of every ship of fifty tons burthen or upwards departing from any port in the United Kingdom upon a voyage to parts beyond the seas, the duration of which, out and home, may not be less than forty days, receives from the searcher an order for the shipment of such stores as may be required and allowed by the collector or comptroller for the use of his ship, with reference to the number of the crew and passengers on board, and the probable duration of the voyage on which she is about to depart; and all demands for such stores, must be made in such form and manner as the collector or comptroller may require, and must be signed by the master or owner of the vessel. And after these stores are duly shipped, the master or his agent must make out an account of the stores so shipped, together with any other stores then already on board; and the same, when presented to the searcher, signed by him, and countersigned by the collector or comptroller, is the *victualling bill.* No stores must be shipped for the use of any exporting ship, nor are any articles taken on board deemed to be stores, except such as are borne on the victualling bill (§ 140).

If there are on board any goods, part of the inward cargo, reported for exportation in the same ship, before clearance outwards of that ship from any port in the United Kingdom, the master must deliver to the searcher a copy of the report inwards of these goods, certified by the collector or comptroller; and if this copy is found to correspond with the goods so remaining on board, the searcher signs the same, to be filled with the certificates or cockets, if any, and victualling bill of the ship (§ 141).

Before any ship can be cleared outwards, from the United Kingdom, with any goods shipped or intended to be shipped on board the same, the master must deliver a content of his ship to the searcher, in the *form given* in the Customs Consolidation Act, or to

that effect, and containing the several particulars therein required, as far as the same can be known by him, and he must make and subscribe the declaration at the foot thereof, in presence of the collector or comptroller, and he must answer such questions as may be demanded of him, concerning the ship, the cargo, and the intended voyage, by the collector or comptroller. And, before clearance, the certificates, if any, are delivered to the searcher, who compares the shipping bills with the content and certificates, and files the certificates, copy of the report inwards, if any, of goods reported for exportation in that ship, and the victualling bill, with a label attached and sealed thereto,—and this label, when filled up, and signed by the collector or comptroller, is, as to the goods comprised therein, the clearance and authority for the departure of the ship (§ 141).

If any goods liable to duty on importation, or taken from the warehouse to be exported, or entitled to drawback on exportation, which are enumerated in the content of any ship, are not duly shipped before the departure of that ship, or are not duly certified by the proper officer as short-shipped, these goods are forfeited. Or, if any such goods are taken on board that ship, not being enumerated in the content, the master forfeits the sum of £5, in respect of every package of these goods; and if any goods duly shipped on board such ship, are landed at any other place than that for which they have been cleared, unless otherwise accounted for to the satisfaction of the commissioners, the master forfeits a sum equal to treble the value of the goods so landed (§ 143).

If any goods are shipped, put off, or water-borne to be shipped, without being duly cleared, or otherwise contrary to the provisions of the Customs Consolidation Act, the same are liable to forfeiture (§ 144). And if any ship having cargo on board, departs from any port without being duly cleared, the master forfeits the sum of £100 (18 and 19 Vic., cap. 96, § 11).

Before any ship departs in ballast from the United Kingdom for parts beyond the seas, not having any goods on board, except stores from the warehouse borne upon the victualling bill, nor any goods reported inwards for exportation in the same ship, the collector or comptroller clears that ship, by notifying the clearance and the date thereof on the victualling bill, and delivers the same to the master as the clearance of the ship; and the master must answer to the collector or comptroller such questions, touching the departure and destination of his ship, as may be demanded of him. Ships having only passengers with their baggage on board, and ships laden only with chalk or slate, are deemed to be in ballast; and if any *such ships*, whether laden or in ballast, depart without being so

cleared, having stores on board, the master forfeits and pays the sum of £100 (16 and 17 Vict., cap. 107, § 145).

3. *Importation.*—If any ship coming into the United Kingdom, does not come as quickly up to the proper place of mooring or unlading, as the nature of the port will admit, without touching at any other place, and, in proceeding to such proper place, does not bring to at the stations appointed by the Commissioners of Customs, for the boarding of ships by the customs officers,—or if, after arriving at such place, the ship removes from that place, except directly to some other proper place of mooring or unlading, and with the knowledge of the proper customs officer,—or, if the master of any ship, on board of which any officer is stationed, neglects or refuses to provide every such officer sufficient room under the deck, in some part of the forecastle or steerage, for his bed or hammock, the master forfeits the sum of £20 (§ 47).

No goods, except diamonds, bullion, lobsters, and fresh fish of British taking and imported in British ships, which can be landed without report or entry, must be unshipped from any ship arriving from parts beyond the seas, or landed or put on shore, on Sundays or holidays,—nor must they be so unshipped, landed, or put on shore, on any other days, except between the hours of eight o'clock in the morning, and four o'clock in the afternoon, from the 1st day of March, until the 1st day of November,—and between the hours of nine o'clock in the morning, and four o'clock in the afternoon, from the 1st day of November to the 1st day of March, or during such other hours as may be appointed by the commissioners,—nor must any goods be unshipped or landed, unless in the presence or with the authority of the proper customs officer,—nor must they be so landed, except at some legal quay, wharf, or other place duly appointed for the landing of goods,—nor must any such goods, after having been unshipped, or put into any boat or craft to be landed, be transhipped or removed into any other boat or craft, previously to their being landed, without permission of the proper customs officer (§ 49).

If any such goods as aforesaid are unshipped, landed, transhipped, or removed contrary to the foregoing enactment, the same are forfeited; and if any goods are unshipped or removed from any importing ship, for the purpose of being landed after due entry thereof, these goods must be forthwith removed to, and landed at the wharf, quay, or other place, at which the same are intended to be landed. If these goods are not so removed and landed, the same are forfeited, together with the barge, lighter, boat, or other vessel employed in removing them (§ 49).

Within *twenty-four hours* after the arrival of every ship, whether

laden or in ballast,—from parts beyond the seas, at any part of the United Kingdom, and before bulk is broken,—the master must make due report of his ship, in the form given in the Customs Consolidation Act, or to the same effect,—and containing the several particulars indicated or required thereby; and if the cargo has been laden at several places, he must state in column one the name or names of the places where the cargo was laden, in the order of time in which the different portions of the same have been laden, opposite to the particulars of the goods so laden (§ 50). If the master wilfully fails to make this report, according to the particulars so required,—so far as these particulars are applicable to the ship, cargo, and voyage,—or if the particulars, or any of them contained in this report, are false, the master forfeits the sum of £100 (§ 51). And goods not duly reported can be detained by any officer or officers of customs, until the same are so reported, and the cause of omission explained to the satisfaction of the commissioners, who may thereupon restore the same on such terms as they deem proper. Should the commissioners deem it necessary, these goods may, in the meantime, be removed to the Queen's warehouse (18 and 19 Vict., cap. 96, § 3).

At the time of making this report, the master must deliver to the collector or comptroller, if required, the bill of lading, or a copy of it, for every part of the cargo laden on board; and he must answer all such questions relating to the ship, crew, and voyage, as may be put to him by the collector or comptroller. In case of failure, or refusal to answer such questions, or to answer truly, or to produce any such bill of lading or copy, or if any such bill of lading or copy is false, or if any bill of lading is uttered or produced by the master and the goods expressed therein have not been *bonâ fide* shipped on board his ship, or if any bill of lading uttered or produced by the master has not been signed by him, or any such copy has not been received or made by him previously to his leaving the place where the goods expressed therein were shipped, or, if, after arrival of the ship within four leagues of the coast of the United Kingdom, bulk is broken, or any alteration is made in the stowage of the cargo, so as to facilitate the unlading of any part of the cargo, or if any part is staved, destroyed, or thrown overboard, or any package opened,—unless accounted for to the satisfaction of the commissioners, in every such case the master forfeits the sum of £100 (16 and 17 Vict., cap. 107, § 53).

In connexion with importation, may be here noticed, the necessity of the master of the importing ship obtaining and producing certificates of *origin*, in respect of certain goods claiming any benefit thereby on importation.

The Customs Consolidation Act enacts, that no goods can be entered as being of, or from, any British possessions abroad (if any benefit attaches to this distinction), except the territories subject to the government of the presidencies of Bengal, Madras, and Bombay, respectively, unless the master of the ship importing the same has delivered to the collector or comptroller a certificate under the hand of the proper officer of the place where these goods were taken on board, of the due clearance of that ship from thence, containing an account of these goods (§ 77).

Before any spirits or sugar, so long as any benefit attaches to this distinction, can be entered as being of the produce of any British possession in America, or the island of Mauritius, the master of the importing ship must deliver to the collector or comptroller a certificate under the hand of the proper officer of the place where these goods were taken on board, testifying, that proof had been made in manner required by law, that these goods are of the produce of some British possession in America, or of the island of Mauritius, stating the name of the place where these goods were produced, the quantity and quality of the goods, the number and denomination of the packages containing the same, and the name of the ship in which they are laden, and of the master thereof (§ 79).

Before any sugar can be entered as being of the produce of any British possession within the limits of the East India Company's charter, the master of the importing ship must, so long as any benefit attaches to this distinction, deliver to the collector or comptroller a certificate, under the *hand and seal* of the proper officer at the place where that sugar has been taken on board, testifying that a declaration in writing, the contents of which he believed to be true, had been made and signed before him by the shipper of such sugar, that the same was really and *bonâ fide* the produce of the British possession (§ 80).

If any sugar, the produce of any British possession within the limits of the East India Company's charter, so long as any benefit attaches to this distinction, has been imported into the Cape of Good Hope from the place of its production, accompanied by the proper certificate of origin sufficient for its admission into the United Kingdom at the rate of duty payable upon such sugar, if imported direct from the place of its production, and that sugar has been warehoused at the Cape of Good Hope, under the regulations there in force for the warehousing of goods, and has been exported from that warehouse, accompanied by a certificate from the proper officer of customs at the Cape, setting forth the particulars of the importation, of the warehousing, and of the exportation of the same, and also setting forth the substance of the certificate of origin before mentioned,

and if, on the arrival of the importing ship in the United Kingdom, the master delivers to the collector or comptroller at the port of importation, this certificate from the officer of customs at the Cape of Good Hope, that sugar is admitted at the port of importation in the United Kingdom, at the same rate of duty as would be payable, if the same had been imported direct from the place of its production (§ 81).

Before any wine can be entered as being the produce of any of the British possessions abroad, the master of the importing ship must deliver to the collector or comptroller a certificate under the hand of the proper officer of such possession, testifying that proof had been made in manner required by law, that that wine is the produce of such possession, stating the quantity and sort thereof, and the number and denomination of the packages containing the same (§ 84).

Boarding of Ships by Customs Officers.—The time at which any goods are shipped on board any *export ship* is deemed to be the time of the exportation of these goods; and the time of the last clearance of the ship is deemed to be the time of the departure of that ship (§ 149).

Any officer of customs can go on board any ship, after clearance outwards, within the limits of any port in the United Kingdom, or within four leagues of the coast thereof, and can demand the ship's clearance. If there are any goods on board, in respect of which certificates are required, not contained in these certificates, or any stores not indorsed on the victualling bill, these goods or stores are forfeited; and if any goods contained in these certificates are not on board, the master forfeits the sum of £20 for every package or parcel of goods contained in the certificates and not on board (§ 146).

If any officer of customs places any lock, mark, or seal, upon any goods taken from the warehouse without payment of duty, as stores on board any ship or vessel departing from any port in the United Kingdom, and this lock, mark, or seal is wilfully opened, altered, or broken, or if any such stores are secretly conveyed away, either while the ship or vessel remains at her first port of departure or at any other port or place in the United Kingdom, or on her passage from one such port or place to another, before her final departure on her foreign voyage, the master forfeits the sum of £20 (§ 147).

If any ship departing from any port in the United Kingdom, does not bring to at the stations appointed by the commissioners for the landing of officers from such ships, or for further examination previous to departure, the master forfeits the sum of £20 (§ 148).

The proper officers of customs can board any ship *arriving at* any *port in* the United Kingdom, and can freely stay on board until all

the goods laden therein are duly delivered from the same, and they must have free access to every part of the ship, with power to fasten down hatchways or entrances to the hold, and to mark any goods before landing, and to lock up, seal, mark, or otherwise secure any goods on board. If any place or any box or chest is locked, and the keys are withheld, the officers, if of a degree superior to that of tide-waiter, can open any such place, box, or chest, in the best manner in their power,—and if they are tidewaters, or only of that degree, they send for their superior officer, who can open, or cause to be opened, any such place, box, or chest, in the best manner in their power; and if any goods are found concealed on board, they are forfeited (§ 48).

If the officers place any lock, mark, or seal upon any goods on board, and this lock, mark, or seal is wilfully opened, altered, or broken before due delivery of these goods,—or if the hatchways or entrances to the hold, after having been fastened down by the officer, are opened, the master forfeits the sum of £100; and if the proper officer of customs places any lock, mark, or seal upon any *stores* on board, and this lock, mark, or seal is wilfully opened, altered, or broken,—or if any such stores are secretly conveyed away, either while the ship remains in the port at which she has so arrived, or before she has arrived at any other port in the United Kingdom, to which she may then be about to proceed, the master forfeits the sum of £20 (§ 48).

Trade with British Possessions Abroad.—Before any spirits or sugar, so long as any benefit attaches to the distinction, can be shipped for exportation in any British possession in America, or in the island of Mauritius, as being the produce of such possession, or of that island, the proprietor of the estate on which the goods were produced, or his known agent, must make and sign a declaration in writing, before the proper officer of customs at the port of exportation, or before one of her Majesty's justices of the peace, residing in or near the place where that estate is situate, declaring that these goods are the produce of that estate, and setting forth the name of the estate and the description and quantity of the goods, and the packages containing the same, with the marks and numbers thereon, and the name of the person at the place of shipment they are to be sent to. The person entering and shipping these goods, must deliver this declaration to the proper officer of customs, and must also make and subscribe a declaration before him, that the goods to be shipped by virtue of this entry, are the same as are mentioned in the first declaration, and the master of the ship in which these goods are laden must, before clearance, make and subscribe a declaration that the *goods shipped by virtue* of that entry, are the same as are men-

tioned and intended in the first declaration, to the best of his knowledge and belief. Thereupon the proper officer of customs signs and gives to the master *a certificate of production*, stating that proof had been made, in manner required by law, that these goods (describing the same) are the produce of such British possession, or of the said island, and setting forth in this certificate the name of the exporter and of the exporting ship, and of the master thereof, and the destination of the goods. If any spirits or sugar is imported into any British possession in America as being the produce of some other such possession, or of the said island, without this certificate, the same are forfeited (§ 176).

Before any sugar or spirits, so long as any benefit attaches to the distinction, can be shipped for exportation in any British possession in America, as being the produce of some other of these possessions, the person exporting the same must, in the entry outwards, state the place of production, and refer to the entry inwards and landing of these goods, and he must also make and subscribe a declaration, before the proper officer of customs, to the identity of the same. Thereupon, if these goods have been imported, with a certificate of production, within twelve months prior to the shipping for exportation, the proper officer of customs signs and gives to the master a *certificate of production*, founding upon and referring to the certificate of production under which these goods had been so imported, and containing the like particulars, together with the date of this importation (§ 177).

No sugar or rum,—the produce of any British possession within the limits of the East India Company's charter, into which the importation of sugar or rum, the produce of any foreign country, or of any British possession into which foreign sugar or rum may be legally imported, has been prohibited,—can be imported into any British possession in the West Indies, South America, or the Mauritius, unless the master of the importing ship deliver to the proper officer of customs *a certificate of origin*, under the hand of the proper officer of customs at the place where the same has been taken on board, stating the name of the district in which that sugar or rum was produced, the quantity and quality or strength thereof, as the case may be, the number and denomination of the packages containing the same, and the name of the ship in which they were laden, and of the master thereof, and of the officer giving the same. The shipper of the sugar or rum must likewise certify, that there had been produced a certificate, under the hand and seal of the collector or assistant collector of the land or customs revenue of the district *within* which the sugar or rum was produced, that that sugar or *rum was the* produce of such district, and that the importation into

such district of foreign sugar and rum, or sugar and rum the produce of any British possession into which foreign sugar or rum can be legally imported, is prohibited; and the master must subscribe a declaration, that this certificate was received by him at the place where these goods were taken on board, and that they are the goods therein mentioned (§ 159).

Before any clearing officer permits any ship, wholly or in part laden with timber or wood goods, to clear out from any British port in North America, or in the settlement of Honduras, for any port in the United Kingdom, at any time after 1st September or before 1st May in any year, he is to ascertain that the whole of her cargo is below deck, and to give the master a certificate to that effect; and no master of any ship so laden, must sail from any of the ports foresaid for any port of the United Kingdom at any time, as before mentioned, until he has obtained the certificate from the clearing officer (§ 170). No master of a ship, in respect of which the certificate has been obtained, must place or permit, or cause to be placed or remain, upon or above the deck of his ship, any part of the cargo thereof, until the ship has arrived at her port of destination. But if, in consequence of the springing of a leak, or of other damage received or apprehended during the voyage, the master considers it necessary to remove any part of the cargo upon deck, he can remove or cause to be removed upon the deck of his ship, so much of the cargo, and can permit the same to remain there for such time as he considers expedient. Store spars and other articles necessary for the ship's use, are not taken to be cargo (§ 171). If the master of any ship, for which the foresaid certificate is required, sails, or attempts to sail, without having obtained this certificate, or places or permits, or causes to be placed or to remain or to be, upon or above the deck of his ship, any part of the cargo thereof, except in the cases in which the same is not forbidden as aforesaid, he, for every offence, forfeits and pays a sum not exceeding £100 (§ 172).

Whenever a ship is cleared out from any port in Newfoundland, or in any other part of her Majesty's dominions, for the fisheries on the banks or coasts of Newfoundland or Labrador, or the dependencies thereof, without having on board an article of traffic, except only provisions, nets, tackle, and other things usually employed in and about the fishery, and for the conduct and carrying on of the same,—the master is entitled to demand from the principal officer of customs at the port of clearance, a certificate under his hand that that ship has been specially cleared out for the Newfoundland fishery, and this certificate is in force for the fishing season for the year in which it is granted, and no longer. Upon the first arrival of a ship, having on board this certificate, in any port in the colony of New-

foundland or its dependencies, a report thereof must be made by the master to the principal officer of customs at that port; and, previously to obtaining a clearance at the end of the fishing season for any voyage, at any of the ports of the colony or its dependencies, the master must deliver up this certificate to the principal officer of customs of that port (§ 175).

The master of every ship bound from any British possessions abroad, except the territories subject to the government of the presidencies of Bengal, Madras, and Bombay, must deliver to the proper officer of customs an entry outwards under his hand of his ship, and must also subscribe and deliver to that officer, a content of the cargo of his ship, if any, or state that she is in ballast, as the case may be; and he must also answer such questions concerning the ship, cargo, if any, and voyage, as may be demanded of him, in the same manner, as nearly as may be, as is observed on the entry and departure of a ship from the United Kingdom. (*See* "*Exportation*," *ante*, p. 172.) Thereupon the proper officer gives to the master a certificate of the clearance of his ship for her intended voyage, and if the ship departs without this clearance, or if the master delivers a false content, or if he does not truly answer the questions demanded of him, he forfeits the sum of £50 (§ 165).

The officer of customs can go on board any ship in any port in any British possession in America, and rummage and search the ship for prohibited goods; and if there are any goods on board prohibited to be imported into such possession, they are forfeited (§ 181).

The master of every ship arriving in any of the British possessions in America, whether laden or in ballast, must come directly, and before bulk is broken, to the custom-house for the port or district where he arrives, and there make a report in writing to the proper officer of customs, in the same form and manner as on the arrival of any ship in the United Kingdom, as far as the same are applicable. (*See* "*Importation*," *ante*, p. 176.) If any goods are unladen before this report is made, or if the master fails to make this report, or makes an untrue report, or does not truly answer the questions demanded of him, he forfeits the sum of £50, and if any goods are not reported, these are forfeited (§ 164).

No goods or passengers can be carried from one part of any British possession in Asia, Africa, or America, to another of the same possession, except in British ships (§ 163).

Carriage of Passengers by Sea.—It is only necessary to notice here those enactments of "The Passengers' Act, 1852," which relate more particularly to the duties of the master of a "passenger ship," and to matters to which it is incumbent on him to attend.

The master of every ship—whether a "passenger ship," or otherwise, fitting or intended for the carriage of passengers, or which shall carry passengers upon any voyage to which the act extends—must afford to the emigration officer or his assistant, at any port or place in her Majesty's dominions, and in the case of British ships, to her Majesty's consul at any foreign port or place at which the ship may be or arrive, every facility for inspecting his ship, and for communicating with the passengers, and for ascertaining that the provisions of the act, so far as applicable, have been duly complied with (15 and 16 Vict., c. 44, § 9). No ship, fitted or intended for the carriage of passengers as a "passenger ship," must clear out or proceed to sea, until the master has obtained from the emigration officer at the port of clearance, a certificate under his hand that all the requirements of the act, so far as the same can be complied with before the departure of the ship, have been duly complied with, nor until the master has joined in executing the bond to the Crown required by the 59th section, as after noticed. And if any "passenger ship" clears out or proceeds to sea, without the master's having obtained this certificate, or without his having joined in executing this bond, that ship is forfeited to the use of her Majesty, and can be seized by any officer of customs, if found within two years from the commission of the offence, in any port or place in the United Kingdom, or in her Majesty's possessions abroad (§ 11).

No ship must clear out or proceed to sea with a greater number of passengers on board (exclusive of *bonâ fide* cabin passengers) than allows the appropriation to them of the following space on the "passenger decks," unoccupied with goods, not being the personal luggage of the passengers, viz., if the ship is not intended to pass within the tropics, 12 clear superficial feet for every statute adult; but if the ship is intended to pass within the tropics, 15 clear superficial feet for every statute adult; nor (unless the ship is propelled by steam) with a greater number of persons on board (including the master, crew, and cabin passengers, and counting two children, above the age of one year and under that of fourteen, as one person), than in the proportion of one person to every two tons of the registered tonnage; and if there are on board of any ship, at or after the time of clearance, a greater number either of persons or passengers than in the proportions now mentioned, the master is liable, on conviction, to a penalty not exceeding £5, nor less than £2, for every person or passenger constituting the excess (§ 12).

Before demanding clearance for his ship—whether a "passenger ship" or otherwise—if carrying passengers on a voyage to which the act extends, the master must make out two lists, in the form given in schedule A annexed to the act, correctly setting forth, as

there directed, the name and other particulars of the ship, and of every passenger on board thereof. These lists, when countersigned by the emigration officer, when there is one at the port, must be delivered by the master to the customs officer from whom a clearance of the ship is demanded, and that officer also countersigns and returns to the master one of the lists, which is called "the master's list;" and the master must exhibit this last-mentioned list, with any additions which may from time to time be made thereto, to the chief officer of customs at any port or place in her Majesty's possessions, or to her Majesty's consul at any foreign port, at which the passengers, or any of them, may be landed; and he deposits the same with the chief officer of customs, or with the consul, as the case may be, at the final port or place of discharge (§ 13). If, at any time after these lists have been signed and delivered as now mentioned, any additional passenger is taken on board, the master must, according to the form above referred to, add to the "master's list" the names and other particulars of every such additional passenger, and he must also sign a separate list, made out according to the same form, containing the names and other particulars of every such additional passenger. This last-mentioned list (when countersigned by the emigration officer, if there is one at the port), together with the "master's list" to which that addition has been made, must be delivered to the chief officer of customs from whom clearance is demanded (§ 13), who thereupon countersigns the "master's list," and retains the separate list; and so in like manner, whenever any additional passenger or passengers are taken on board. But if no customs officer is stationed at the port or place where such additional passenger or passengers are taken on board, these lists must be delivered to the customs officer at the next port or place at which the vessel touches or arrives, where a customs officer is stationed, to be dealt with as before directed; and when any additional passengers are taken on board, before the ship can proceed to sea, the master must obtain a fresh certificate from the emigration officer of the port that all the requirements of the act have been duly complied with; and, in default, he is liable, for each offence, to a penalty not exceeding £50 (§ 14).

If any ship—whether a "passenger ship" or otherwise—does not actually put to sea and proceed on her intended voyage, on the day appointed for sailing in or by any contract made by the owner, charterer, or master, or by his or their agent, with any passenger who, on that day, is on board, or ready to go on board, the owner, charterer, or master, or his or their agent, or any of them, at the option of the passenger or emigration officer, must pay to every such passenger,—or if the passenger is lodged and maintained in an estab-

lishment under the superintendence of the Colonial Land and Emigration Commissioners, then to the emigration officer at the port of embarkation,—subsistence-money, at the rate of one shilling for each statute adult, for each day's delay, until the final departure of the ship on her voyage. But, when the ship is unavoidably detained either by wind or weather, and the passengers are maintained on board, in the same manner as if the voyage had commenced, no such subsistence-money is payable (§ 45).

If, after clearance, any "passenger ship" is detained in port for more than seven days, or puts into or touches at any port or place in the United Kingdom, she must not put to sea again, until there has been put on board, at the expense of the owner, charterer, or master, such further supply of pure water, wholesome provisions of the requisite kinds and qualities, and medical stores, as may be necessary to make up the full quantities of those articles required by the act, for the use of the passengers during the whole of the intended voyage, nor until any damage she may have sustained has been effectually repaired, nor until the master has obtained from the emigration officer or his assistant,—or, where there is no such officer, or, in his absence, the customs officer at that port or place,—a certificate to the same effect as is required by the act (§ 10), to enable the ship to be cleared out; and, in case of any default, the master is liable, on conviction, to a penalty not exceeding £100, nor less than £50. If the master of any "passenger ship" so putting into or touching at any port or place as aforesaid, does not, within twenty-four hours thereafter, report, in writing, his arrival, and the cause of his putting back, and the condition of his ship, and of her stores and provisions, to the emigration officer, or, as the case may be, to the customs officer at the port, and does not produce to that officer, the official or "master's list" of passengers, he, for each offence, is liable to a penalty not exceeding £20, nor less than £2 (§ 46).

If, from disaster at sea, or any other cause whatsoever, any "passenger ship" puts into any port or place within the United Kingdom, and is not made sound and sea-worthy, and within six weeks again proceeds with her passengers on her intended voyage, the owner, charterer, or master, must provide the passengers with a passage, in some other eligible ship, to the port or place at which they respectively have originally contracted to land, and must, in the meantime, pay to the passengers,—if they are not lodged and maintained on board, in the same manner as if the ship were at sea, or if they are lodged and maintained in an establishment under the superintendence of the Colonial Land and Emigration Commissioners, then to the emigration officer at that port or place,—subsistence-money, after the rate of one shilling, for each statute adult, for each

day's delay, until these passengers are duly forwarded to their destination. If default is made in any of the requirements of this section, the passengers respectively, or the emigration officer on their behalf, can recover, by summary process, all monies paid by, or on account of, these passengers, or any of them, for their passage, from the party to whom or on whose account the same may have been paid, or from the owner, charterer, or master, or any of them, at the option of the passenger or emigration officer. And, if he think it necessary, the emigration officer can direct that the passengers be removed from such "passenger ship" at the expense of the master thereof (§ 47).

If, without any neglect or default of their own, any passengers of a "passenger ship" find themselves in any colonial or foreign port or place other than that at which they have contracted to land, and the master of the ship declines or omits, within six weeks thereafter, to forward or carry them on to their original destination, it is lawful for the governor of the colony, or for any person authorised by him for the purpose, or for her Majesty's consul or vice-consul at the foreign port or place, to forward these passengers to their intended destination (§ 48). All expenses thereby incurred, including the cost of maintaining the passengers, until forwarded to the place of their destination, and of all necessary provisions, bedding, and stores, is a debt due to her Majesty from the owner, charterer, and master of the ship, and is recoverable from them, or from any one or more of them, at the suit and for the use of her Majesty, in like manner as in the case of other crown debts (§ 50).

By the act, a penalty, not exceeding £50, nor less than £5, is imposed on the master of any ship or "passenger ship," as the case may be, coming within the provisions of the act, who is convicted of any one of the following offences :—

If in any ship, whether a "passenger ship" or otherwise, fitting, or intended for the carriage of passengers, or which shall carry passengers on any voyage to which any of the provisions of the act extends, every facility for inspection is not afforded, as required by § 9; or, if passengers are carried on any other than the "passenger decks" (§ 3), as required by § 12; or, if a clearance is demanded for any ship, whether a "passenger ship" or otherwise, before the lists of passengers are signed and delivered to the proper officer, as required by § 13; or, if at any time during the voyage, all the additions to the "master's lists" are not made, or if the additional or separate lists are not made and delivered to the proper officer, as required by § 13; or, if these lists, or the additions to the same, are not duly exhibited or deposited with the proper officer at *any port or* place, as required by the two sections last before re-

ferred to; or, if any of these lists, or the additions thereto, respectively, are wilfully false; or, if any "passenger ship" clears out, and proceeds to sea without being duly surveyed, as required by § 16; or, if at the time of clearance, or at any time during the voyage, the beams on which the "passengers' decks" are supported in any such "passenger ship," shall not form part of her permanent structure, and be supported as required by § 17; or, if the "passenger decks" are not of the thickness, and laid or secured in such manner as is required by that section; or, if the height between any deck on which passengers can lawfully be carried, and the deck immediately above it, is less than six feet (§ 17); or, if there are more than two tiers of berths in any one deck, or if these berths are not securely constructed, or are not of the dimensions—not less than six feet in length and eighteen inches in width, for each statute adult; or, if there is not an interval between the decks and the floor of the berths,—all as required by § 18; or if the passengers are berthed contrary to the requirements of § 19; or, if the unmarried male passengers of fourteen years of age and upwards, are not berthed in separate compartments, as required by that section; or, if any of the berths are taken down contrary to the requirement in § 20; or, if in any "passenger ship," a space is not properly divided off and set apart for an hospital, as required by § 21; or, if, before clearance, any "passenger ship" is not fitted with privies, or, if the same are not maintained, throughout the voyage, in a serviceable condition, as required by § 22; or, if the passengers have not free access to or from the between-decks, as required by § 23; or, if, at the time of clearance, or at any time during the voyage, any "passenger ship" has not on board such life-boats and buoys, and such adequate means for making signals by night, and for extinguishing fires, as are required by § 24; or, if any "passenger ship" proceeds to sea without being properly manned, or has on board, as cargo or as ballast, any articles prohibited by the act, or any articles likely, by reason of their nature or quality, to endanger the health or lives of the passengers, or the safety of the ship, as mentioned in §§ 25, 26; or, if any part of the cargo, or of the provisions, water, or stores are carried on the upper deck, or on the "passenger decks," contrary to the provisions of § 26; or, if in any "passenger ship," at any time during the voyage, water and provisions of the description, quantity, or quality, required by, or under, § 32, are not issued in the quantities and in the manner required by that section and § 33; or, if bad or unwholesome provisions are issued to any passengers, contrary to the requirements of § 32; or, if the water is not carried in such tanks or casks, as required by § 30; or if, in the cases mentioned in §§ 35 and 36, there are not on board of any

"passenger ship," at the time of clearance, and at all times during the voyage, such passengers'-steward, and such passengers'-cook or cooks, and such place for cooking and cooking apparatus, as required by §§ 38 and 39; or, if there are not on board any "passenger ship," such medicines, disinfecting fluid, or agent, instruments, and medical apparatus, and such printed or written directions for the use of the same respectively, as may, at any time, be required by, or under the provisions of §§ 39 and 40; or, if any "passenger ship" shall clear out or proceed to sea, before such medical inspection of the medicines and passengers has taken place, and such certificate of the medical inspector has been granted, as required by § 41; or, if any diseased person on board of any "passenger ship," or the members of his family, are not re-landed, as required by § 42; or, if, without his previous consent, any passenger shall be landed at any other place than the place at which he has contracted to land (§ 52); or, if any passenger is not allowed to sleep and be maintained on board the ship after arrival, for the period, and in the manner provided by § 53; or, if there is not kept on board a copy of the act, and the same is not produced on demand, as required by § 57 (§ 70).

Where no time is expressly limited within which any complaint or information is to be made or laid for any breach or non-performance of any of the requirements of the act—in case the master is the offender or party complained against—the complaint must be made, or the information laid, within twelve calendar months next after his return to the country in which the matter of complaint or information arose (§ 82).

Before any "passenger ship" can clear out or proceed to sea, the owner or charterer, or, in the event of his absence, one good and sufficient person on his behalf, to be approved by the chief officer of customs at the port of clearance, must, with the master of the ship, enter into a joint and several bond, in the sum of £1000, to her Majesty, &c., in the form given in the schedule B annexed to the act,—the condition of which bond, is, that the ship is in all respects seaworthy; and that, notwithstanding any penalty imposed by the act, and whether the same has been pursued for and recovered or not, all and every the requirements of the act (except such as relate exclusively to passage brokers), and of the Colonial Land and Emigration Commissioners acting in the manner prescribed by the act, and of any order in council which, at the date of the bond, may have been passed in virtue of the act, shall be, in all respects, well and truly performed; and that the master shall well and truly pay all penalties, fines, and forfeitures, which he may be adjudged to pay, either in the United Kingdom, or by any tribunal in any of her

Majesty's possessions abroad having jurisdiction, for, or in respect of, the breach or non-performance of any of the requirements of the act, or of the commissioners, or of any order in council. This bond is not liable to stamp-duty, and is executed in duplicate (§ 59).

The act before referred to applies more peculiarly to emigrant ships, but the Merchant Shipping Act appoints certain surveys to be made and certificates for passenger steam-ships generally. The expression "passenger steamer" in the act, includes every British steam-ship carrying passengers to, from, or between any place or places in the United Kingdom, except steam ferry-boats working in chains, commonly called steam-bridges (§ 303).

Every passenger steamer must be surveyed at least twice in each year, in manner after mentioned (§ 304); and the Board of Trade, from time to time, appoints shipwright-surveyors and engineer-surveyors at such ports and places as it thinks proper; and can, from time to time, remove these surveyors, or any of them; and can, from time to time, fix and alter the rates of remuneration to be received by them (§ 305).

The owner of every passenger steamer must cause the same to be surveyed at the times after directed, by one of the shipwright-surveyors and by one of the engineer-surveyors so appointed, the shipwright-surveyor being, in the case of iron steamers, a person properly qualified to survey such ships; and thereupon, and if satisfied they can with propriety do so, they give to the owner declarations as follows:—

The shipwright-surveyor's declaration must contain statements of the following particulars:—

(1.) That the hull of the ship is sufficient for the service intended, and in good condition:

(2.) That the partitions, boats, lights, signals, compasses, and shelter for deck passengers (§ 301), and the certificates of the master and mate, or mates, are such, and in such condition, as required by §§ 134, 135, and 136:

(3.) The time (if less than six months) for which the hull and equipments will be sufficient:

(4.) The limits (if any) beyond which, as regards the hull and equipments, the ship is, in the surveyor's judgment, not fit to ply:

(5.) The number of passengers which the ship is, in the surveyor's judgment, fit to carry, distinguishing, if necessary, between the respective numbers to be carried on the deck and in the cabins, and in different parts of the deck and cabins, these numbers being subject to such conditions and variations, according to the time of the year, the nature of the voyage, the cargo carried, and other circumstances, as the case requires.

And the engineer-surveyor's certificate must contain statements of the following particulars:—

(1.) That the machinery is sufficient for the service intended, and in good condition:

(2.) The time (if less than six months) for which such machinery will be sufficient:

(3.) That the safety-valves and fire-hose are such and in such condition as are required by § 301:

(4.) The limits of the weight to be placed on the safety-valve (§ 302):

(5.) The limits (if any) beyond which, as regards the machinery, the ship is, in the surveyor's judgment, not fit to ply:

And these declarations must be in the form directed by the Board of Trade (§ 309).

In the execution of their duties, it is lawful for the surveyors to go on board any steam-ship at all reasonable times, and to inspect the same, or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof, or any certificates of the master or mates to which the provisions of the act or any of the regulations made by virtue thereof, apply, not unnecessarily detaining or delaying the ship from proceeding on any voyage; and if, in consequence of any accident, or for any other reason, they consider it necessary so to do, to require the ship to be taken into dock for the purpose of surveying the hull thereof. Any person who hinders any surveyor from going on board, or otherwise impedes him in the execution of his duty, incurs a penalty not exceeding £5 (§ 306).

Within fourteen days after the dates of the receipts of these declarations respectively, the owner must transmit them to the Board of Trade, and, in default, he forfeits a sum not exceeding 10s. for every day this sending them is delayed, and this sum must be paid upon delivery of the certificate as mentioned in § 313, in addition to the fee payable for the same, and is applied in the same manner as these fees (§ 310).

In all cases where practicable, these half-yearly surveys must be made in the months of April and October, and the declaration transmitted before the 30th April and 31st October respectively. But if the owner of a passenger steamer is unable to have the same surveyed in the months of April or October (as the case may be), either by reason of the ship being absent from the United Kingdom during the whole of these periods respectively, or by reason of the ship or its machinery being under construction or repair, or of her being laid up in dock, or for any other reason satisfactory to the Board of Trade, then he must have the same so surveyed as soon thereafter as possible, and must transmit the declarations to the board within

fourteen days after the receipt thereof, together with a statement of the reasons which have prevented the survey at the time before prescribed; and, in case of delay in transmitting the declarations, he is liable to a forfeiture similar to that mentioned in the preceding section (§ 311).

Upon receipt of these declarations, the Board of Trade, if satisfied that the foregoing provisions have been complied with, causes a certificate in duplicate to be prepared and issued, to the effect, that the provisions of the law with respect to the survey of the ship and the transmission of declarations in respect thereof, have been complied with; and this certificate states the limits (if any) beyond which, according to the declarations of the surveyors, the ship is not fit to ply, and also contains a statement of the number of passengers which, according to the declaration of the shipwright-surveyor, that ship is fit to carry, distinguishing (if necessary) between the respective numbers to be carried on deck and in the cabins, and in different parts of the deck and cabins, —this number being subject to such conditions and variations, according to the time of the year, the nature of the voyage, the cargo carried, and other circumstances, as the case requires (§ 312). The board transmits the duplicate certificate to the shipping-master, or to some other public officer at such port as the owner mentions, or at the port where the owner or his agent resides, or where the ship was surveyed and is lying for the time; and the board causes notice of this transmission to be given, by post or otherwise, to the master, or owner, or his agent. The shipping-master or other officer delivers this duplicate certificate to the owner, master, or agent, on his applying and paying the fees and any other sums payable in that behalf; and, in proving the due issue and transmission to the owner, agent, or master of this certificate, it is sufficient to shew that the same has been duly received by the shipping-master or public officer, and that due notice of this transmission has been given to the owner, master, or agent (§ 313). The owner of every passenger steamer requiring this certificate, must pay for every certificate so granted by the board such fees as the board directs, not exceeding the fees in the table T annexed to the act (§ 314).

No certificate is held to be in force for the purpose of the act beyond the date fixed by the board for the expiration thereof; and no certificate is in force after notice is given by the board to the owner, agent, or master of the ship to which the same relates, that the board has cancelled or revoked the same. But if any passenger steamer is absent from the United Kingdom at the time when her certificate expires, no penalty is incurred for want of a certificate until she first begins to ply with passengers after her next subsequent return to the *United Kingdom*. The board can require any certifi-

cate which has expired, or has been revoked or cancelled, to be delivered up as it directs; and any owner or master who, without reasonable cause, neglects or refuses to comply with this requirement, incurs a penalty not exceeding £10 (§ 315).

The board can revoke and cancel such certificates in any case in which it has reason to believe (1), that the declarations of the sufficiency and good condition of the hull, equipments, and machinery of any passenger steamer, or any of them, have been fraudulently or erroneously made; or (2), that such certificate has otherwise issued upon false or erroneous information; or (3), that since the making of these declarations, the hull, equipments, or machinery of the ship have sustained any injury, or are otherwise insufficient. And in every such case, the board can, if it thinks fit, require the owner to have the hull, equipments, or machinery of that ship again surveyed, and to transmit a further declaration or declarations of the sufficiency and good condition thereof, before re-issuing any certificate, or granting a fresh one in lieu thereof (§ 316).

The surveyors before mentioned make, from time to time, such returns to the board as it requires, with respect to the build, dimensions, draught, burthen, rate of sailing, room for fuel, and the nature and equipments of the ships surveyed by them; and every owner, master, and engineer must, on demand, give to these surveyors all such information and assistance within his power as they require for the purpose of these returns. Every owner, master, or engineer who, on being applied to for that purpose, wilfully refuses or neglects to give this information or assistance, is liable to a penalty not exceeding £5 (§ 321).

On the transmission of the foresaid certificate to him or his agent, the owner or master must forthwith cause one of the duplicates so transmitted to be put up in some conspicuous part of the ship, so as to be visible to all persons on board, and must cause it to be continued so put up, so long as the certificate remains in force, and the ship is in use; and in default, the owner or master incurs, for every offence, a penalty not exceeding £10 (§ 317).

It is not lawful for any passenger steamer to proceed to sea, or upon any voyage or excursion with passengers on board, unless the owner has transmitted to the Board of Trade the declarations before required, nor unless the owner or master has received from the board such a certificate as before provided for, this certificate being a certificate applicable to the voyage or excursion on which the ship is about to proceed; and no officer of customs can grant a clearance or transire for any passenger steamer, unless upon the production of this certificate, being a certificate then in force and applicable as *aforesaid*. If any passenger steamer attempts to ply or go to sea

without this production, any such officer can detain her until this certificate is produced; and if any passenger steamer plies or goes to sea with any passengers on board, without having one of the duplicates of this certificate, being a certificate then in force and applicable as aforesaid, so put up in some conspicuous part of the ship as before required, the owner incurs, for such offence, a penalty not exceeding £100, and the master also incurs a further penalty not exceeding £20 (§ 318).

If the owner or master, or other person in charge of a passenger steamer, receives on board thereof, or on or in any part thereof, or if that ship has on board thereof, or on or in any part thereof, any number of passengers, which, having regard to the time, occasion, and circumstance of the case, is greater than the number of passengers allowed by the certificate,—the owner or master incurs a penalty not exceeding £20, and also an additional penalty not exceeding 5s. for every passenger over and above that number, or, if the fare of any of the passengers on board exceeds 5s., not exceeding double the amount of all the passengers over and above the number so allowed, this fare being estimated at the highest rate of fare payable by any passenger on board (§ 319).

Every person who knowingly and wilfully makes, or assists in making, or procures to be made, a false or fraudulent declaration or certificate with respect to any passenger steamer requiring a certificate as aforesaid, or who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any declaration or certificate so required, or any words or figures in any declaration or certificate, or any signature thereto, is deemed guilty of a misdemeanor (§ 320). And every surveyor who demands or receives, directly or indirectly, from the owner or master of any ship surveyed by him as before mentioned, any fee or remuneration whatsoever, for or in respect of that survey, otherwise than as the officer and by the direction of the Board of Trade, he incurs a penalty not exceeding £50 (§ 308).

CHAPTER III.

THE ENGAGEMENT, DUTIES, AND RIGHTS OF THE SEAMEN.

Apprentices—Engagement of seamen—(1.) Licences to engage—(2.) Terms of agreement—(3.) Running agreements for foreign-going ships—(4.) Agreements for home-trade ships—(5.) General rules—(6.) Seamen engaged in British possessions or foreign—(7.) Production of agreements and certificates for foreign-going ships—(8.) Production of agreements and certificates for home-trade ships—(9.) Miscellaneous—(10.) Allotment of wages—(11.) Legal rights to wages—(12.) Provisions, medical stores, health, and accommodation—(13.) Discipline of ship—(14.) Relief to seamen's families out of poor-rates—(15.) Volunteering into the navy—(16.) Wages and effects of deceased seamen—(17.) Leaving seamen abroad—(18.) Power of making complaint—(19.) Naval courts on the high seas and abroad—(20.) Crimes committed on the high seas and abroad—(21.) Remittance of wages and savings' banks for seamen—(22.) Discharge and payment of wages—(23.) Mode of recovering wages—(24.) Registration and returns respecting seamen.

APPRENTICES.—It is one part of the general business of the shipping-masters, to facilitate the making of apprenticeships to the sea service (17 & 18 Vict., c. 104, § 124), and the indentures must be in duplicate, and are exempt from stamp duty. Within seven days after the execution of the indentures, every person to whom any boy whatever is bound as an apprentice to the sea service in the United Kingdom, must take or transmit the same to the registrar-general of seamen, or some shipping-master, who retains and records one copy, and indorses on the other that the same is recorded, and re-delivers it to the master of the apprentice. Whenever any such indenture is assigned or cancelled, and whenever any such apprentice dies or deserts,—within seven days after this assignment, cancellation, death, or desertion, if happening within the United Kingdom, or, if happening elsewhere, as soon afterwards as circumstances permit,—the master of the apprentice must notify the same, either to the registrar of seamen or to some shipping-master, to be recorded. Every person failing to comply with these provisions, incurs a penalty not exceeding £10 (§ 143).

Before carrying any apprentice to sea from any place in the United Kingdom, the master of every foreign-going ship must cause the apprentice to appear before the shipping-master before whom the crew is engaged, and he must produce to him the indenture by which the apprentice is bound, and the assignment or assignments thereof, if any; and the name of the apprentice, with the date of the indenture, and of the assignment or assignments thereof, if any, and the name of the port or ports at which the same have been *registered*, are to be entered on the agreement. For any default in

obeying these provisions, the master incurs, for each offence, a penalty not exceeding £5 (§ 146).

In the case of every boy bound apprentice to the sea service by the guardians or overseers of the poor, or other person having the authority of these guardians, the indentures must be executed by the boy and the person to whom he is bound, in the presence of and attested by two justices of the peace, who are required to ascertain that the boy has consented to be bound, has attained the age of twelve years, and is of sufficient health and strength, and that the master to whom the boy is to be bound is a proper person for the purpose (§ 142). All apprenticeships so made to the sea service, if made in Great Britain, must be made in the same manner, and are subject to the same rules and regulations, as other apprenticeships made by the same persons, and, if made in Ireland, are subject to the five special rules given in the act (§ 144).

ENGAGEMENT OF SEAMEN.—(1.) *Licences to Engage.*—The Board of Trade grants licences to such persons as it thinks fit, to engage or supply seamen or apprentices for merchant ships in the United Kingdom, to continue for such periods, upon such terms, and revocable upon such conditions, as the board thinks proper (§ 147).

The following offences are punishable as now to be mentioned:—(1.) If any person not so licensed, other than the owner or master, or a mate of the ship, or some person truly the servant and in the constant employ of the owner, or a shipping-master duly appointed under the act, engages or supplies any seaman or apprentice to be entered on board any ship in the United Kingdom, he, for every seaman or apprentice so engaged or supplied, incurs a penalty not exceeding £20. (2.) If, for the purpose of engaging or supplying any seaman or apprentice to be entered on board any ship in the United Kingdom, any person *employs* an unlicensed person, he, for each seaman or apprentice so engaged or supplied, incurs a penalty not exceeding £20, and, if licensed, forfeits his licence. And (3), If any person knowingly *receives or accepts* to be entered on board any ship, any seaman or apprentice who has been engaged or supplied contrary to these provisions, he, for every seaman or apprentice so engaged or supplied contrary to these provisions, incurs a penalty not exceeding £20 (§ 147).

If any person demands or receives, either directly or indirectly, from any seaman or apprentice, or from any person seeking employment as such, or from any person on his behalf, any remuneration whatever, other than the fees authorised by the act, for providing him with employment, he, for every such offence, incurs a penalty not exceeding £5 (§ 148).

(2.) *Terms of Agreement for Foreign-going* Ships.—Except ships

of less burthen than eighty tons' registered tonnage, exclusively employed in trading on the coasts of the United Kingdom, the master of every ship must enter into an agreement with *every seaman* whom he carries to sea from any port in the United Kingdom as one of his crew, and that agreement must be in the form sanctioned by the Board of Trade, and must be dated at the time of the first signature thereof, and must be signed by the master before any seaman signs the same. Every agreement is so framed as to admit of stipulations adopted, in each case, at the will of the master and seaman, and may contain any other stipulations not contrary to law. But if the master of a ship belonging to a British possession has an agreement with his crew, made in form according to the laws of that possession, or of the possession in which his crew was engaged, and *he engages single seamen* in the United Kingdom, these seamen can sign the agreement so made, and it is not necessary for them to sign an agreement in the form sanctioned by the board (§ 149).

In the case of all foreign-going ships, in whatever part of her Majesty's dominions the same are registered, the following rules must be observed with respect to the agreement:—(1.) Every agreement made in the United Kingdom (except agreements with substitutes, as after provided for) must be signed by each seaman in presence of a shipping-master. (2.) That shipping-master must cause the agreement to be read over and explained to *each* seaman, or otherwise ascertain that each seaman understands the same, before he signs it, and the shipping-master attests each signature. (3.) When the crew is first engaged, the agreement must be signed in duplicate, one of which is retained by the shipping-master, and the other contains a special place or form for the descriptions and signatures of substitutes, or persons engaged subsequently to the first departure of the ship, and is delivered to the master. (4.) In the case of substitutes engaged in the place of seamen who have duly signed the agreement, and whose services have been lost within twenty-four hours of the ship's putting to sea, by death, desertion, or other unforeseen cause, the engagement must, when practicable, be made before some shipping-master duly appointed, and, when it cannot be so made, the master must, before the ship puts to sea, if practicable, and, if not, as soon afterwards as possible, cause the agreement to be read over and explained to the seamen, who thereupon sign the same, in presence of a witness, who attests their signatures (§ 150).

(3.) *Running Agreements for Foreign-going Ships.*—In the case of foreign-going ships making voyages averaging less than six months in duration, running agreements can be made with the crew, to extend over two or more voyages, so that no such agree-

ment can extend beyond the next following 30th June or 31st December, or the first arrival of the ship at her port of destination in the United Kingdom after such date, or the discharge of cargo consequent upon that arrival; and every person entering into such an agreement, whether engaged upon the first commencement thereof or otherwise, must enter into and sign the same in the same manner as is required for other foreign-going ships; and every person engaged under such a running agreement, if discharged in the United Kingdom, must be discharged in the same manner as is required for the discharge of a seaman belonging to other foreign-going ships (§ 151). And the master of a foreign-going ship for which such a running agreement has been made, must, upon every return to the United Kingdom before the final termination of the agreement, discharge or engage before the shipping-master at that port, any seaman whom he is required by law to discharge or engage, and upon every such return, he must indorse upon the agreement a statement (as the case may be), either that no such discharges or engagements have been made, or that all such discharges or engagements have been duly made, as before required, and he must deliver the agreement so indorsed to the shipping-master. Any master who wilfully makes a false statement in this indorsement, incurs a penalty not exceeding £20; and the shipping master also signs an indorsement upon the agreement, to the effect that the provisions of the act relating to such agreement have been complied with, and he re-delivers the agreement so indorsed to the master (§ 152).

When these running agreements are made, the duplicate retained by the shipping-master upon the first engagement of the crew, is either immediately transmitted to the registrar-general, or kept by the shipping-master until the expiration of that agreement, as the Board of Trade directs (§ 153). And the fees payable upon the engagement and discharge of the seamen of foreign-going ships having running agreements, are thus determined:—the crew are to be considered engaged when the agreement is first signed, and to be discharged when the agreement finally terminates; and all intermediate engagements and discharges are considered to be engagements and discharges of single seamen (§ 154).

(4.) *Agreements for Home-trade Ships.*—In home-trade ships, the crews or single seamen may, if the master thinks fit, be engaged before a shipping-master, in the same manner as is directed with respect to foreign-going ships; and, in every case in which the engagement is not so made, the master must, before the ship puts to sea, if practicable, and if not, as soon after as possible, cause the agreement be read over and explained to each seaman, who there-

upon signs the same in presence of a witness, who attests his signature (§ 155). And when several home-trade ships belong to the same owner, this running agreement with the seamen can be made by the owner instead of by the master, and the seamen can be engaged to serve in any two or more of such ships,—provided that the names of the ships and the nature of the service are specified in the agreement, but, with this exception, all the foregoing provisions relating to ordinary agreements for home-trade ships are applicable to agreements made under this section (§ 156).

(5.) *General Rules.*—If, in any case, a master carries a seaman to sea without entering into an agreement with him, in the form and manner, and at the place and time, as in such case is before required, —the master, in the case of a foreign-going ship, and the master or owner, in the case of a home-trade ship, incurs, for each such offence, a penalty not exceeding £5 (§ 157).

The master of every foreign-going ship, of which the crew has been engaged before a shipping-master, must, before finally leaving the United Kingdom, sign and send to the nearest shipping-master, a full and accurate statement,—in the form sanctioned by the Board of Trade,—of every change which takes place in his crew, before finally leaving the United Kingdom; and, in default, he incurs, for each offence, a penalty not exceeding £5. This statement is admissible in evidence, subject to all just exceptions (§ 158).

(6.) *Seamen engaged in British Possessions or Foreign.*—Every master who, if his ship is registered in the United Kingdom, engages any seaman in any British possession, or, if she belongs to any British possession, engages any seaman in any British possession other than that to which the ship belongs, must, if there is at the place any official shipping-master, or other officer duly appointed for shipping seamen, engage that seaman before him, or if there is no such shipping-master or officer, then before some officer of customs. The same rules, qualifications, and penalties, as are before specified with respect to the engagement of seamen before shipping-masters in the United Kingdom, apply to these engagements in a British possession; and upon every such engagement, the shipping-master or officer indorses an attestation upon the agreement, to the effect that the same has been signed in his presence, and otherwise made as required by this section of the act. If, in any case, this attestation is not made, the burden of proving that the seaman was duly engaged as hereby required, lies upon the master (§ 159).

Every master of a British ship, who engages any seaman *at any place out of* her Majesty's dominions in which there is a British consular officer (consul-general, consul, and vice-consul, and any person *discharging* for the time the duties of such), must, before carry-

ing such seamen to sea, procure the sanction of and engage the seaman before that officer; and the same rules, as are before specified with respect to the engagement of seamen before shipping-masters in the United Kingdom, apply to engagements made before consular officers. Upon such engagement, the consular officer indorses on the agreement his sanction thereof, and an attestation to the effect, that the same has been signed in his presence, and otherwise made as required by the act. The master, who engages any seaman at any place in which there is a consular officer, otherwise than is required by this section, incurs a penalty not exceeding £20; and if, in any case, the indorsement and attestation as before required, are not made upon the agreement, the burden of proving the engagement to have been made as before required, lies upon the master (§ 160).

(7.) *Production of Agreements and Certificates for Foreign-going Ships.*—The following rules must be observed, with respect to the production of agreements and certificates of competency or service for foreign-going ships:—

1. On signing the agreement with his crew, the master must produce to the shipping-master before whom the same is signed, the certificates of competency or service which he himself, his first or second or only mate, as the case may be, are required by the act to possess. And upon this production being duly made, and the agreement being executed as required, the shipping-master signs and gives to the master a certificate to that effect:

2. In the case of running agreements for foreign-going ships, before the second and every subsequent voyage made after the first commencement of the agreement, and on the master complying with the foregoing provisions with respect to such agreements, and producing to the shipping-master the certificate of any first, second, or only mate then first engaged by him, the shipping-master signs and gives to the master a certificate to that effect:

3. Before proceeding to sea, the master of every foreign-going ship must produce to the collector or comptroller the certificate so given to him by the shipping-master, and no officer of customs can clear the ship outwards without this production; and if any such ship attempts to go to sea without a clearance, any customs officer can detain her until this certificate is produced:

4. Within forty-eight hours after the arrival of a foreign-going ship at her final port of destination in the United Kingdom, or upon the discharge of her crew, whichever first happens, the master must deliver the agreement to the shipping-master at the place, who thereupon gives him a certificate of this delivery; and no officer of customs can clear any foreign-going ship inwards without production of this certificate.

And, if the master of a foreign-going ship fails to deliver the agreement to a shipping-master at the time and in the manner now directed, he incurs, for every default, a penalty not exceeding £5 (§ 161).

(8.) *Production of Agreements and Certificates for Home-trade Ships.*—The following rules must be observed, with respect to production of agreements and certificates of competency or service for home-trade ships:—

1. In the case of home-trade ships, no agreement can extend beyond the next following 30th June or 31st December, or the first arrival of the ship at her final port of destination in the United Kingdom, or the discharge of cargo consequent upon that arrival:

2. Within twenty-one days after the 30th June and the 31st December in every year, the master or owner of every home-trade ship must transmit or deliver to some shipping-master in the United Kingdom, every agreement made within the six calendar months next preceding these days respectively; and, in the case of home-trade passenger ships, he must also produce to the shipping-master, the certificate of competency or service, which he himself, and his first or only mate, as the case may be, are required by the act to possess:

3. Thereupon the shipping-master gives to the master or owner a certificate of this delivery and production; and no customs officer can grant a clearance or transire for any home-trade passenger ship without production of this certificate; and if she attempts to ply or go to sea without a clearance or transire, any customs officer can detain her until this certificate is produced:

And if any agreement for a home-trade ship is not delivered or transmitted by the master or owner to a shipping-master, at the time and in the manner before directed, the master or owner incurs, for every default, a penalty not exceeding £5 (§ 162).

(9.) *Miscellaneous.*—Every erasure, interlineation, or alteration in the agreement made with the seamen, as before required, except the additions made for shipping substitutes or persons engaged subsequently to the first departure of the ship, is wholly inoperative, unless proved to have been made with the consent of all the persons interested in such erasure, interlineation, or alteration, by the written attestation,—if the same is made in her Majesty's dominions,—of some shipping-master, justice, customs officer, or other public functionary; or,—if the same is made out of her Majesty's dominions,—of a British consular officer, or, where there is no such officer, of two respectable British merchants (§ 163); and every person who fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, or who makes, assists in making, or procures to be made, any false entry in, or who delivers, assists in delivering,

or procures to be delivered, a false copy of any agreement, is, for each such offence, deemed guilty of a misdemeanor (§ 164).

At the commencement of every voyage or engagement, the master must cause a legible copy of the agreement (omitting the signatures) to be placed or posted up in such part of the ship as to be accessible to the crew; and, in default, he incurs, for each offence, a penalty not exceeding £5 (§ 166). But any seaman can bring forward evidence to prove the contents of the agreement, or otherwise to support his case, without producing, or giving notice to produce, the agreement, or any copy thereof (§ 165).

When a seaman has signed the agreement, and is afterwards discharged before the commencement of the voyage, or before one month's wages are earned, without fault on his part justifying that discharge, and without his consent, he is entitled to receive from the master or owner, in addition to any wages he may have earned, due compensation for the damage thereby caused to him, not exceeding one month's wages; and, on his adducing such evidence as the court hearing the case deems satisfactory, of his having been so improperly discharged, he can recover this compensation as wages duly earned (§ 167).

(10.) *Allotment of Wages.*—All stipulations made at the commencement of a voyage for the allotment of any part of a seaman's wages during his absence, must be inserted in the agreement, and must state the amounts and times of the payments to be made; and these allotment notes must be in the forms sanctioned by the Board of Trade (§ 168).

The wife, or the father or mother, or the grandfather or grandmother, or any child or grandchild, or any brother or sister of a seaman, in whose favour an allotment note of part of his wages is made, can, unless he is shewn, as after mentioned, to have forfeited or ceased to be entitled to the wages out of which the allotment is to be paid, and subject to the after-mentioned provision as to the wife, sue for, and recover the sums so allotted by the note, when and as the same are payable, with costs, from the owner or agent who has authorised the drawing of the note, either in the county court (in England), or in the summary manner in which seamen are, by the Merchant Shipping Act, entitled to sue for and recover wages not exceeding £50 (§ 169). (See *postea*, § 188.)

In such proceeding it is sufficient to prove, that he or she is the person mentioned in the note, and that the note was given by the owner, or by the master, or some other authorised agent; and the seaman is presumed to be duly earning his wages, unless the contrary is shewn to the satisfaction of the court, either by the official statement of the change in the crew caused by his absence, made

and signed by the master, as required by the Merchant Shipping Act, or by a duly certified copy of some entry in the official log-book, to the effect that he has left the ship, or by a credible letter from the master to the same effect, or by such other evidence, of whatever description, as the court, in its absolute discretion, considers sufficient to shew satisfactorily, that the seaman has ceased to be entitled to the wages out of which the allotment is to be paid. And the wife of any seaman, who deserts her family, or so misconducts herself as to be undeserving of support from her husband, thereupon forfeits all right to further payments of any allotment of his wages which has been made in her favour (§ 169).

(11.) *Legal Rights to Wages.*—The former maxim, that "freight is the mother of wages," no longer holds; and, by the Merchant Shipping Act, it is enacted, that no right of wages shall be dependent on the earning of freight; and, subject to all other rules of law and conditions applicable to the case, every seaman and apprentice who, if the ship in which he has served had earned freight, would be entitled to demand and recover wages, is entitled to claim and recover the same, notwithstanding that freight has not been earned. But in all cases of wreck or loss of the ship, proof that he has not exerted himself to the utmost to save the ship, cargo, and stores, bars his claim (§ 183).

The seaman's right to wages and provisions is taken to commence either at the time at which he commences work, or at the time specified in the agreement for his commencement of work, or presence on board, whichever first happens (§ 181). And no seaman forfeits, by any agreement, his lien upon the ship, or is deprived of any remedy for the recovery of his wages, to which he would otherwise be entitled; and every stipulation in any agreement inconsistent with any provision of the act, and every stipulation by which a seaman consents to abandon his right to wages, in case of the loss of the ship, or to abandon any right which he may have or obtain in the nature of salvage, are wholly inoperative (§ 182).

No wages due, or accruing to any seaman or apprentice, are subject to attachment or arrestment from any court; and every payment of wages to a seaman or apprentice is valid in law, notwithstanding any previous sale or assignment of these wages, or of any attachment, incumbrance, or arrestment thereon. No assignment or sale of such wages or of salvage, made prior to the accruing thereof, binds the party making the same; and no power of attorney or authority made for the receipt of any such wages or salvage is irrevocable (§ 233).

If any seaman or apprentice to whom wages are due under § 183, *ut supra, dies* before the same are paid, these must be applied in

the manner after specified with respect to the wages of seamen dying during a voyage. *See infra* (§ 16), *Wages and Effects of Deceased Seamen.*

In cases where the service of a seaman terminates before the period contemplated in the agreement, by reason of the wreck or loss of the ship, and also in cases where his service terminates before said period, by reason of his being left ashore at any place abroad, under a certificate—(granted, as after mentioned (§ 17), *Leaving Seamen Abroad*, § 209)—of his unfitness or inability to proceed on the voyage, that seaman is entitled to wages for the time of service prior to such termination as aforesaid, but not for any further period (§ 185). But no seaman or apprentice is entitled to wages for any period during which he unlawfully refuses to work when required, whether before or after the time fixed by the agreement for his beginning to work—nor, unless the court hearing the case otherwise directs, for any time during which he may be imprisoned for any offence committed by him (§ 186).

(12.) *Provisions, Medical Stores, Health, and Accommodation.*—Any three or more of the crew of a British ship can complain to any officer in command of any of her Majesty's ships, or any British consular officer, or any shipping-master, or any chief officer of customs, that the provisions or water for the use of the crew are at any time of bad quality, unfit for use, or deficient in quantity; and thereupon that officer can examine said provisions or water, or cause them to be examined. If, on examination, these provisions or that water are found to be of bad quality, and unfit for use, or to be deficient in quantity, the person making the examination signifies the same in writing to the master, and if he does not thereupon provide other proper provisions or water, in lieu of any so signified to be deficient in quantity, or uses any provisions or water which have been so signified to be of a bad quality, and unfit for use, he, in every such case, incurs a penalty not exceeding £20. The officer making or directing the examination, enters in the official log-book, upon every such examination, the result of the examination, and sends a report thereof to the Board of Trade; and if this report is produced out of the custody of the board or its officers, it is to be received in evidence in any legal proceeding (§ 221).

But if the officer to whom any such complaint as now mentioned is made, certifies in his statement in the official log, that there was no legal ground for such complaint, each of the parties so complaining is liable to forfeit to the owner, out of his wages, a sum not exceeding one week's wages (§ 222).

1. If, during the voyage, the allowance of any of the provisions which the seamen have each stipulated for by the agreement, is reduced,

except in accordance with any regulations in the agreement, for reduction by way of punishment, or except for any time during which a seaman, wilfully, and without sufficient cause, refuses or reglects to perform his duty, or is lawfully under confinement for misconduct either on board or on shore;—2. if it is shewn that any of these provisions are, or, during the voyage, have been, bad in quality, and unfit for use,—the seaman must receive for such reduction or bad quality, —according to the time of its continuance,—the following sums, to be paid to him in addition to, and to be recoverable as wages:—

1. If his allowance is reduced by any quantity not exceeding one-third of the quantity specified in the agreement, a sum not exceeding 4d. a-day: 2. If his allowance is reduced by more than one-third of such quantity, 8d. a-day: 3. In respect of such bad quality as before mentioned, a sum not exceeding 1s. a-day.

But if it is shewn, to the satisfaction of the court before which the case may be tried, that any provisions—the allowance of which has been reduced—could not be procured or supplied in proper quantities, and that proper and equivalent substitutes were supplied in lieu thereof, the court can take these circumstances into consideration, and modify or refuse compensation, as the justice of the case may require (§ 223).

The following rules must be observed with respect to medicines, medical stores, and anti-scorbutics*:—

1. The Board of Trade publishes, from time to time, a scale of medicines and medical stores suitable to accidents and diseases arising on sea voyages:

2. The owner of every ship navigating between Great Britain and any place out of the same, must provide and cause to be constantly kept on board his ship, a supply of such medicines and medical stores, in accordance with this scale:

3. Except ships bound to European ports, or to ports in the Mediterranean; and also except such ships or classes of ships bound to ports on the eastern coast of America, north of the 35° N. L., and to any place or islands in the Atlantic Ocean north of the same limit, as the Board of Trade may, from time to time, exempt from the enactment following:—the master or owner of every foreign-going ship must provide and cause to be kept on board his ship a sufficient quantity of lime or lemon juice, and also of sugar and vinegar:

4. The master of every such last-mentioned ship must serve out the lime or lemon juice, or other such articles so sanctioned as substitutes, and sugar and vinegar, to the crew, whenever they have consumed salt provisions for ten days, and so long afterwards as this consumption continues,—the lime or lemon juice and sugar *daily*, at the rate

* Medicines which prevent or cure the scurvy.

of half an ounce each per day, and the vinegar *weekly*, at the rate of half a pint per week to each member of the crew.

And if in any ship as now mentioned, these medicines, medical stores, lime or lemon juice, or other articles, sugar and vinegar, as before required, are not provided and kept on board, in terms of the foregoing enactment, the master or owner incurs a penalty not exceeding £20; and if the master neglects to serve out the lime or lemon juice, or other articles, sugar or vinegar, in the case and in the manner before directed, he incurs for each such offence a penalty not exceeding £5; but if the master is convicted in either of the last-mentioned penalties, and it appears that the offence is owing to the act or default of the owner, the master can recover the amount of the penalty, and the costs incurred by him, from the owner (§ 224).

Every master must keep on board, proper weights and measures for the purpose of determining the quantities of the several provisions and articles served out; and he must allow the same to be used at the time of serving out these provisions and articles, in the presence of a witness, whenever any dispute arises about these quantities. In default, he incurs, for every offence, a penalty not exceeding £10 (§ 225).

Upon being required by the Board of Trade so to do, any local marine board can appoint and remove a medical inspector of ships for the port, and can fix his remuneration, such remuneration being subject to the control of the Board of Trade; and, at ports where there are no local marine boards, the Board of Trade can appoint and remove these inspectors, and fix their remuneration. It is the duty of these inspectors to inspect the medicines, medical stores, lime or lemon juice, or other articles, sugar and vinegar, required to be kept on board the before-mentioned ships; and, if made at places where there are local marine boards, this inspection must be made under their direction; and if made at places where there are no local marine boards, it is made under the direction of the Board of Trade. For the purposes of this inspection, the medical inspectors have the same powers as the inspectors appointed by the Board of Trade to report upon the matters set forth in § 14 of the Merchant Shipping Act (§ 226).

If required by timely notice in writing from the master, owner, or consignee, every such inspector must make his inspection three days, at least, before the ship proceeds to sea; and, if the result of the inspection is satisfactory, he need not again make inspection before the commencement of the voyage, unless he has reason to suspect that some of the articles inspected have been subsequently removed, injured, or destroyed. Whenever a medical inspector is of opinion

that, in any ship required by the act to carry such articles as aforesaid, the same, or any of them, are deficient in quantity or quality, or are placed in improper vessels, he must signify the same in writing to the chief officer of customs of the port where the ship is lying, and also to the master, owner, or consignee thereof; and, thereupon, and before proceeding to sea, the master must produce to that chief officer of customs, a certificate under the hand of the same medical inspector, or of some other medical inspector, to the effect, that such deficiency has been supplied or remedied, or that such improper vessels have been replaced by proper vessels, as the case may require. The chief officer of customs cannot grant a clearance for such ship without the production of this certificate; and if she attempts to go to sea without a clearance, he can detain her until this certificate is produced. If the ship proceeds to sea without the production of the certificate, the owner, master, or charterer incurs a penalty not exceeding £20 (§ 226).

The following rules must be observed with respect to expenses attendant on illness and death:—

1. If the master, or any seaman or apprentice, receives any hurt or injury in the service of the ship to which he belongs, the expense of providing the necessary surgical and medical advice, with attendance and medicine, and of his subsistence, until he is cured, or dies, or is brought back to some port in the United Kingdom, if shipped in the United Kingdom, or if shipped in some British possession, to some port in the same possession, and of his conveyance to that port, and the expense (if any) of his funeral, must be defrayed by the owner of the ship, without any deduction on that account from the wages of the master, seaman, or apprentice:

2. If, on account of any illness, the master, or any seaman or apprentice, is temporarily removed from his ship, for the purpose of preventing infection, or otherwise for the convenience of the ship, and subsequently returns to his duty, the expense of his removal, and of providing the necessary advice, with attendance and medicines, and of his subsistence whilst away from the ship, must be defrayed in like manner:

3. The expense of all medicines, and surgical or medical advice and attendance given to the master, or any seaman or apprentice, whilst on board his ship, must be defrayed in like manner:

4. In all other cases, any reasonable expenses duly incurred by the owner for any seaman, in respect of illness, and also any reasonable expenses duly incurred by the owner, in respect of the burial of any seaman or apprentice, who dies whilst on service, must, if duly proved, be deducted from the wages of that seaman or apprentice (§ 227).

If any such expenses in respect of the illness, injury, or hurt of any seaman or apprentice, as are to be borne by the owner, are paid by any consular officer, or other person on behalf of her Majesty, or if any other expenses, in respect of the illness, injury, or hurt of any seaman or apprentice, whose wages are not accounted for to that officer under the provisions in the act in that behalf (*postea*, *Leaving Seamen Abroad*, § 209), are so paid, these expenses must be repaid to that officer or other person, by the master of the ship; and if not so repaid, the amount thereof, with costs, is a charge upon the ship, and is recoverable from the master, or from the owner of the ship *for the time being*, as a debt due to her Majesty, and is recoverable, either by ordinary process of law, or in the summary manner in which seamen can recover wages (§ 229).

Every foreign-going ship, having one hundred persons or upwards on board, must carry on board, as part of her complement, some person duly authorised by law to practise as physician, surgeon, or apothecary; and in default, the owner incurs, for every voyage made without such medical practitioner, a penalty not exceeding £100. But this does not in anywise affect the provisions in §§ 38 and 39 of the Passengers Act, 1852, as to the carriage of medical practitioners by "passenger ships" (§ 230).

The following rules must be observed with respect to accommodation on board:—

1. Every space in the ship occupied by seamen or apprentices, and appropriated to their use, must have, for every seaman or apprentice, if they sleep in hammocks, a space of not less than nine superficial feet, and if they do not sleep in hammocks, a space of not less than twelve superficial feet, measured on the deck or floor of the place:

2. Every such place must either be six feet in height from deck to deck, or must have for every seaman or apprentice, if they sleep in hammocks, a space of not less than fifty-four cubic feet, and if they do not sleep in hammocks, a space of not less than seventy-two cubic feet:

3. Every such place must be kept free from stores or goods of any kind, not being the personal property of the crew in use during the voyage:

4. Every such place must be properly caulked, and in all other respects securely and properly constructed and well ventilated.

And if any such place is not on the whole sufficiently large to give such space for each seaman or apprentice, or is not properly caulked, and in all other respects securely and properly constructed and well ventilated, the owner incurs, for every such failure to comply with *these provisions*, a penalty not exceeding £20; and if the

space is not kept free from goods and stores, the master incurs, for every such failure, a penalty not exceeding £10 (§ 231).

Discipline of Ship.—Any master of, or any seaman or apprentice belonging to, a British ship, who, by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, does any act tending to the immediate loss, destruction, or serious damage of that ship, or tending immediately to endanger the life or limb of any person belonging to or on board of that ship, or by neglect of duty, or by reason of drunkenness, refuses or omits to do any lawful act proper and requisite to be done by him for preserving his ship from immediate loss, destruction, or serious damage, or for preserving any person belonging to or on board of that ship from immediate danger to life or limb,—he, for every such offence, is deemed guilty of a misdemeanor (§ 239).

Upon application of the owner of any ship, being within the jurisdiction of any court having admiralty jurisdiction in any of her Majesty's dominions, or by the part-owner or consignee, or by the agent of the owner, or by one-third or more of the crew, and upon proof on oath to the satisfaction of the court that the removal of the master of that ship is necessary, that court can remove the master accordingly; and with consent of the owner or his agent, or the consignee of the ship, or if there is no owner, or agent of the owner, or consignee of the ship within the jurisdiction of the court, then, without such consent, that court can also appoint a new master in his stead, and can also make such order and require such security in respect of costs in the matter as it thinks fit (§ 240).

If the Board of Trade, or any local marine board, has reason to believe that any master or mate is unfit, from incompetency or misconduct, to discharge his duties, the Board of Trade can either institute an investigation, or can direct the local marine board at or nearest to the place at which it may be convenient for the parties and witnesses to attend, to institute the same; and, thereupon, such persons as the Board of Trade may appoint for the purpose, or, as the case may be, the local marine board, with the assistance of a local stipendiary magistrate (if any), and if there is no such magistrate, with the assistance of a competent legal assistant appointed by the Board of Trade, can conduct the investigation, and summon the master or mate to appear, and must give him full opportunity of making a defence in person or otherwise. For the purpose of this investigation, the persons appointed by the Board of Trade, or the local marine board, have all the powers given by the first part of the Merchant Shipping Act to inspectors appointed by the Board of Trade, as already noticed, and can make such order, with respect to the costs of the investigation, as they may deem just. Upon the

conclusion of the investigation, a report upon the case must be made to the Board of Trade (§ 241).

In cases where there is no local marine board before which the parties and witnesses can conveniently attend, or where the local marine board is unwilling to institute the investigation, the Board of Trade can direct the same to be instituted before two justices or a stipendiary magistrate; and, thereupon, this investigation must be conducted, and the results thereof reported, in the same manner and with the same powers in and with which formal investigations into wrecks and casualties are directed to be conducted, and the results thereof reported, under § 432–438 of the act, save only that, if the Board of Trade so directs, the person bringing the charge of incompetency or misconduct to the notice of the board, is deemed to be the party having the conduct of the case (§ 241).

Whenever any seaman, who has been lawfully engaged, or any apprentice to the sea service, commits any of the after-mentioned offences, he is liable to be punished summarily as follows:—

(1.) For desertion, he is liable to imprisonment for any period not exceeding twelve weeks, with or without hard labour; and also to forfeit all or any part of the clothes and effects he leaves on board, and all or any part of the wages or emoluments he may earn *in any other ship* in which he may be employed until his next return to the United Kingdom, and also to satisfy any excess of wages paid by the master or owner of the ship from which he deserts, to any substitute engaged in his place at a higher rate of wages than was stipulated to be paid to him:

(2.) For neglecting or refusing, without reasonable cause, to join his ship, or to proceed to sea in his ship, or for absence without leave, at any time within twenty-four hours of the ship sailing from any port, either at the commencement or during the progress of any voyage, or for absence at any time, without leave and without sufficient reason, from his ship or from his duty, not amounting to desertion, or not treated as such by the master,—he is liable to imprisonment for any period not exceeding ten weeks, with or without hard labour; and also, at the discretion of the court, to forfeit out of his wages a sum not exceeding the amount of two days' pay, and, in addition, for every twenty-four hours of absence, either a sum not exceeding six days' pay, or any expenses properly incurred in hiring a substitute:

(3.) For quitting the ship without leave, after her arrival at her port of delivery, and before she is placed in security,—he is liable to forfeit out of his wages a sum not exceeding one month's pay:

(4.) For wilful disobedience to any lawful command,—he is liable to imprisonment for any period not exceeding four weeks, with or

without hard labour; and also, at the discretion of the court, to forfeit, out of his wages, a sum not exceeding two days' pay:

(5.) For *continued* wilful disobedience to lawful commands, or *continued* wilful neglect of duty,—he is liable to imprisonment for any period not exceeding twelve weeks, with or without hard labour; and also, at the discretion of the court, to forfeit, for every twenty-four hours' continuance of such disobedience or neglect, either a sum not exceeding six days' pay, or any expenses properly incurred in hiring a substitute:

(6.) For assaulting the master or mate,—he is liable to imprisonment for any period not exceeding twelve weeks, with or without hard labour:

(7.) For combining with any other or others of the crew to disobey lawful commands, or to neglect duty, or to impede the navigation of the ship, or the progress of the voyage,—he is liable to imprisonment for any period not exceeding twelve weeks, with or without hard labour:

(8.) For wilfully damaging the ship, or embezzling or wilfully damaging any of the stores or cargo,—he is liable to forfeit, out of his wages, a sum equal in amount to the loss sustained; and also, at the discretion of the court, to imprisonment for any period not exceeding twelve weeks, with or without hard labour:

(9.) For any act of smuggling of which he is convicted, and whereby loss or damage is occasioned to the master or owner,—he is liable to pay to the master or owner, such a sum as is sufficient to reimburse the master or owner for that loss or damage; and the whole or a proportionate part of his wages can be retained in satisfaction, or on account of this liability, without prejudice to any further remedy (§ 243).

Upon the commission of any of the offences before enumerated, an entry thereof must be made in the official log-book; and the offender, if still in the ship, before her next subsequent arrival at any port, or if she is at the time in port, before her departure therefrom, must either be furnished with a copy of this entry, or have the same audibly read over to him, and thereupon he can make such reply thereto as he thinks fit. A statement that a copy of this entry has been furnished, or that it has been so read over, and the reply (if any) made by the offender, must likewise be entered and signed in manner foresaid; and in any subsequent legal proceedings, the entries so required must be produced or proved, and in default of this production or proof, the court hearing the case can, at its discretion, refuse to receive evidence of the offence (§ 244).

Every seafaring person, whom the master of a ship is compelled to take on board and convey (§ 211, et seq. infra), and every person

who goes to sea in a ship, without the consent of the master or owner, or other person entitled to give that consent, must, so long as he remains in the ship, be subject to the same laws and regulations for preserving discipline, and to the same penalties and punishments for offences constituting or tending to a breach of discipline, to which he would be subject were he a member of the crew, and had signed the agreement (§ 245).

Whenever a seaman or apprentice, either at the commencement or during the progress of a voyage, neglects or refuses to join, or deserts from, or refuses to proceed to sea in the ship in which he is duly engaged to serve, or is found absenting himself therefrom without leave, —the master, or any mate, or the owner, ship's-husband, or consignee, can, in any place *in* her Majesty's dominions, with or without the assistance of the local police officers (who, by the act, are directed, if required, to give the same); and also, at any place *out of* her Majesty's dominions, if and so far as the laws in force at that place will permit, apprehend him without first procuring a warrant, and can thereupon, in any case, and *must*, in case he so requires, and it is practicable, convey him before some court capable of taking cognisance of the matter, to be dealt with according to law. For the purpose of conveying him before the court, he can detain him in custody for a period not exceeding twenty-four hours, or such shorter time as may be necessary; or if he does not so require, or if there is no court at or near the place, he can at once convey him on board; and if this apprehension appears to the court, before which the case is brought, to have been made on improper or insufficient grounds, the master, mate, &c., who makes the same, or causes the same to be made, incurs a penalty not exceeding £20. But, if this penalty is inflicted, it is a bar to any action for false imprisonment in respect of such apprehension (§ 246).

Whenever a seaman or apprentice is brought before a court on the ground of his having neglected or refused to join, or to proceed to sea in the ship in which he is engaged to serve, or of having deserted, or otherwise absented himself therefrom without leave,—instead of committing the offender to prison, the court can, if the master, or the owner or his agent so requires, cause him to be conveyed on board, for the purpose of proceeding on the voyage, or deliver him to the master, or any mate of the ship, or the owner or his agent; and, in such case, can order any costs and expenses properly incurred by or on behalf of the master or owner, by reason of the offence, to be paid by the offender, and, if necessary, to be deducted from any wages which he has then earned, or which, by virtue of his then existing engagement, he may afterwards earn (§ 247).

If a *seaman or apprentice* is imprisoned on the ground of his

having neglected or refused to join, or to proceed to sea in the ship in which he is engaged to serve, or of having absented himself without leave, or of his having committed any other breach of discipline, and if, during his imprisonment, and before his engagement is at an end, his services are required on board his ship,—any justice can, at the request of the master, or of the owner or his agent, cause the seaman or apprentice to be conveyed on board his ship, for the purpose of proceeding on the voyage; or to be delivered to the master, or any mate of the ship, or to the owner or his agent, to be by them so conveyed, notwithstanding the termination of the period for which he was sentenced to imprisonment has not arrived (§ 248).

In all cases of desertion from a ship in any place abroad, the master must produce the entry of this desertion, in the official log-book, to the person or persons required by § 207 to indorse on the agreement a certificate of that desertion; and thereupon such person or persons make and certify a copy of this entry, and also a copy of the certificate of desertion. If this person is a public functionary, he must, and, in other cases, the master must, forthwith transmit these copies to the registrar-general in England, who, if required, causes the same to be produced in any legal proceeding; and, in any such proceeding relative to that desertion, these copies, if purporting to be so made and certified, and certified to have come from the registrar, are to be received as evidence of the entries appearing therein (§ 249).

Whenever a question arises, whether the wages of a seaman or apprentice are forfeited for desertion, it is sufficient for the party insisting on the forfeiture to shew, that that seaman or apprentice was duly engaged in, or that he belonged to the ship from which he is alleged to have deserted, and that he quitted the ship before the completion of the voyage or engagement; or, if the voyage was to terminate in the United Kingdom, and the ship has not returned, that he is absent from her, and that an entry of the desertion has been duly made in the official log-book. Thereupon, and so far as relates to any forfeiture of wages, or emoluments under the foresaid provisions, the desertion is to be deemed to be proved, unless the seaman or apprentice can produce a proper certificate of discharge, or can otherwise shew to the satisfaction of the court that he had sufficient reasons for leaving his ship (§ 250).

Whenever, in any proceeding relating to seamen's wages, it is shewn that any seaman or apprentice has, in the course of the voyage, been convicted of any offence by any competent tribunal, and rightly punished therefor by imprisonment or otherwise,—the court hearing the case, can direct any part of the wages due to that seaman, not exceeding £3, to be applied in reimbursing any costs properly in-

curred by the master in procuring his conviction and punishment (§ 251).

Whenever any seaman contracts for wages by the voyage, or by the run, or by the share, and not by the month or other stated period of time, the amount of forfeiture incurred under the Merchant Shipping Act, is to be taken to be an amount bearing the same proportion to the whole wages or share, as a calendar month, or other period of time before-mentioned, in fixing the amount of the forfeiture (as the case may be), bears to the whole time spent on the voyage. If the whole time spent on the voyage does not exceed the period for which the pay is forfeited, the forfeiture extends to the whole wages or pay (§ 252).

All clothes, effects, wages, and emoluments, which, under § 243, are forfeited for desertion, are to be applied, in the first instance, in or towards the reimbursement of the expenses occasioned by that desertion, to the master or owner of the ship from which the desertion has taken place; and, if earned subsequently to the desertion, these wages and emoluments can be recovered by the master, or by the owner or his agent, in the same manner as the deserter himself might have recovered the same, had they not been forfeited; and, in any legal proceedings relating to these wages, the court can order the same to be paid accordingly. Subject to the foresaid reimbursement, the same must be paid into the receipt of her Majesty's Exchequer, in such manner as the Treasury directs, and are carried to, and form part of, the Consolidated Fund of the United Kingdom. And in all other cases of forfeiture of wages under the foresaid provisions, and in the absence of any specific directions to the contrary, the forfeiture is for the benefit of the master or owner by whom the wages are payable (§ 253).

Any question concerning the forfeiture of, or deductions from, the wages of a seaman or apprentice, can be determined in any proceeding lawfully instituted with respect to these wages, notwithstanding the offence in respect of which that question arises, though made punishable by imprisonment as well as forfeiture, has not been made the subject of any criminal proceeding (§ 254).

If, on or before being engaged, a seaman wilfully and fraudulently makes a false statement of the name of his last ship, or last alleged ship, or wilfully and fraudulently makes a false statement of his own name, he incurs a penalty not exceeding £5. This penalty can be deducted from any wages he may earn by virtue of that engagement, and, subject to reimbursement of the loss and expenses (if any) occasioned by any previous desertion, is paid and applied in the same manner as other penalties payable under the act are by § 524 (§ 255).

Whenever any seaman commits an act of misconduct, for which

his agreement imposes a fine, and which it is intended to punish by enforcing that fine, an entry thereof must be made in the official log-book, and a copy of this entry must be furnished, or the same must be read over to the offender; and an entry of this reading over, and of the reply (if any) made by the offender, must be made in the same manner, and subject to the same conditions, as have been before mentioned with respect to offences against discipline, specified and punishable as aforesaid (§ 243). This fine must be deducted and paid over as follows:—If the offender is discharged in the United Kingdom, and the offence and the foresaid entries thereof are proved, —in the case of a foreign-going ship,—to the satisfaction of the shipping-master before whom the offender is discharged,—and,—in the case of a home-trade ship,—to the satisfaction of the shipping-master at or nearest to the place at which the crew is discharged,—the master or owner deducts the same from the wages of the offender, and pays the same over to that shipping-master; and if, before the final discharge of the crew in the United Kingdom, the offender enters into any of her Majesty's ships, or is discharged abroad, and the offence and the foresaid entries are proved to the satisfaction of the officer in command of the ship into which he so enters, or of the consular officer, officer of customs, or other person by whose sanction he is so discharged,—the fine must thereupon be deducted, as before mentioned, and an entry of that deduction must then be made in the official log-book (if any), and signed by the officer or other person; and on the return of the ship to the United Kingdom, the master or owner must pay over the fine,—in the case of foreign-going ships,—to the shipping-master before whom the crew is discharged, and,—in the case of home-trade ships,—to the shipping-master at or nearest to the place at which the crew is discharged. If the master or owner neglects or refuses to pay over any such fine in manner foresaid, he incurs, for each such offence, a penalty not exceeding six times the amount of the fine retained by him. But no act of misconduct, for which any such fine has been inflicted and paid, can be otherwise punished under the provisions of the Merchant Shipping Act (§ 256). See *Volunteering into the Navy, infra.*

Every person who, by any means whatever, persuades, or attempts to persuade, any seaman or apprentice to neglect to join, or not to proceed in, or to desert from his ship, or otherwise to absent himself from his duty,—incurs, for each such offence in respect of each seaman or apprentice, a penalty not exceeding £10; and every person,—who wilfully harbours or secretes any seaman or apprentice, who has deserted from his ship, or who has wilfully neglected or refused to join or has deserted from his ship, knowing, or having reason *to believe*, that seaman or apprentice to have done so,—incurs, for

every such seaman or apprentice so harboured or secreted, a penalty not exceeding £20 (§ 257).

Any person who secretes himself, and goes to sea in a ship, without the consent of either the owner, consignee, or master, or of a mate, or of any person in charge of the ship, or of any other person entitled to give that consent, incurs a penalty not exceeding £20, or is liable to imprisonment, with or without hard labour, for any period not exceeding four weeks (§ 258).

RELIEF TO SEAMEN'S FAMILIES OUT OF POOR'S RATES.—Whenever, during the absence of a seaman on a voyage, his wife, children, or step-children, become chargeable to any union or parish in the United Kingdom, that union or parish is entitled to be reimbursed, out of his wages earned during that voyage, any sums properly expended during his absence, in the maintenance of these relations, or any of them, so that these sums do not exceed the following proportion of his wages:—(1.) If only one of these relations is chargeable, one-half of these wages; (2.) If two or more of these relations are chargeable, two-thirds of these wages. But if, during the absence of the seaman, any sums have been paid by the owner to or on behalf of any such relation, under an allotment note given by the seaman in his, her, or their favour, the foresaid claim for reimbursement is limited to the excess (if any) of the before-mentioned proportion of wages over the sums so paid (§ 192).

For the purpose of obtaining this reimbursement, the guardians of the poor of the union or parish, where the relief of the poor is administered by guardians, and the overseers of the poor of any other parish in England,—the guardians, or other persons having authority of guardians, in any union in Ireland,—and the inspector of the poor in Scotland, can give to the owner of the ship in which the seaman is serving, a notice in writing, stating the proportion of the seaman's wages on which it is intended to make the claim, and requiring the owner to retain that proportion in his hands, for a period to be therein mentioned, not exceeding twenty-one days from the time of the seaman's return to his port of discharge, and also requiring the owner, immediately on such return, to give to these guardians, &c., notice in writing of that return. After receiving this notice, the owner is bound to retain the said proportion of wages, and to give notice of the seaman's return accordingly, and he must likewise give the seaman notice of the intended claim (§ 193).

Upon the seaman's return, the guardians, &c., can apply in a summary way, in England or Ireland, to any two justices having jurisdiction in that union or parish, and, in Scotland, to the sheriff of the county, for an order for this reimbursement as aforesaid, and the justices or the sheriff can hear the case, and can make an order for

reimbursement to the whole extent, or to such lesser amount as they or he may, under the circumstances, think fit, and the owner must pay to these guardians, &c., out of the seaman's wages, the amount so ordered to be paid by way of reimbursement, and must pay the remainder of the wages to the seaman. If no such order is obtained within the period mentioned in the notice given to the owner as aforesaid, the foresaid proportion of wages so to be retained by him is payable, without deduction, to the seaman immediately on the expiration of that period (§ 193).

VOLUNTEERING INTO THE NAVY.—Any seaman can leave his ship for the purpose of *forthwith* entering into her Majesty's naval service, and this leaving his ship is not to be deemed a desertion therefrom, and does not render him liable to any punishment or forfeiture whatever. All stipulations introduced into any agreement, whereby a seaman is declared to incur any forfeiture, or is exposed to any loss in case he enters into her Majesty's naval service, are void; and every master or owner, who causes any such stipulation to be so introduced, incurs a penalty not exceeding £20 (§ 214).

Whenever, without having previously committed any act amounting to and treated by the master as desertion, a seaman leaves his ship in order to enter into the naval service of her Majesty, *and is received into that service*, the master must deliver to him his clothes and effects on board his ship, and pay the proportionate amount of wages down to the time of this entry, subject to all just deductions, as follows:—The master of the ship pays these wages to the officer authorised to receive the seaman into her Majesty's service, either in money or by a bill drawn upon the owner, payable at sight, to the order of the accountant-general of the navy. The receipt of the officer is a discharge for the money or bill so given, and this bill is exempt from stamp duty. If the wages are paid in money, the money is credited in the muster-book of the ship to the seaman's account; and if paid by bill, this bill is noted in the muster-book and sent to the accountant-general, who presents it, or causes it to be presented for payment, and credits the produce thereof to the seaman's account (§ 215).

This money or produce is not to be paid to the seaman, until the time at which he would have been entitled to receive the same, had he remained in the service of the ship which he has so quitted, and if this bill is not duly paid when presented, the accountant-general, or the seaman on whose behalf it is given, can sue thereon, or can recover the wages due by all or any of the means, by which the wages due to merchant seamen are recoverable. If, upon a seaman leaving his ship in the manner and for the purpose foresaid, the master fails to deliver his clothes and effects, or to pay his wages as

before required, he, in addition to his liability to pay and deliver the same, incurs a penalty not exceeding £20. But no officer, who receives a bill as aforesaid, is subject to any liability in respect thereof, except for its safe custody until sent to the accountant-general (§ 215).

If, upon a seaman so leaving his ship for the purpose of entering her Majesty's naval service, the owner of that ship shews to the satisfaction of the admiralty that he has paid, or properly rendered himself liable to pay, an advance of wages to or on account of that seaman, and that that seaman has not, at the time of quitting his ship, duly earned this advance by service therein; and in case of such liability as aforesaid, and if the owner or master actually satisfies the same, the admiralty can pay to the owner or master so much of this advance as has not been duly earned, and deduct the sum so paid, from the wages of the seaman earned or to be earned in her Majesty's naval service (§ 216).

If, in consequence of a seaman so leaving his ship without the consent of the owner or master thereof, it becomes necessary, for the safety and proper navigation of that ship, to engage a substitute or substitutes, and if the wages or remuneration paid to such substitute or substitutes for subsequent service, exceeds the wages or remuneration which would have been payable to the seaman under his agreement for similar service, the master or owner can apply to the registrar of the High Court of Admiralty in England, for a certificate authorising the repayment of this excess. This application must be in the form, and must be accompanied by such documents and by such statements, whether on oath or otherwise, as the judge of that court, from time to time, directs (§ 217).

Upon receiving this application, the registrar gives notice thereof in writing, and of the sum claimed, to the secretary of the admiralty, and he proceeds to examine the application, and can call upon the registrar-general of seamen to produce any papers in his possession relative thereto, and he can call for further evidence; and if the whole of the claim appears to him to be just, he gives a certificate accordingly. But if he considers that the claim, or any part of it, is not just, he gives notice of such his opinion in writing, under his hand, to the person making that application, or to his attorney or agent; and if, within sixteen days from the giving of this notice, that person does not leave, or cause to be left at the office of the registrar of the admiralty, a written notice demanding that this application be referred to the judge of that court, then the registrar finally decides thereon, and certifies accordingly (§ 218).

But, if this latter notice *is left* as now mentioned, then the application stands referred to the admiralty judge in his chambers, and

his decision thereon is final, and the registrar certifies the same accordingly. In every proceeding under the Merchant Shipping Act, the registrar and judge of admiralty have respectively full power to administer oaths, and to exercise all the ordinary powers of the court, as in any other proceeding within its jurisdiction. The registrar or judge (as the case may be) can, if he thinks fit, allow for the costs of the proceedings, any sum not exceeding £5 for each seaman so quitting his ship as aforesaid; and this sum can be added to the sum allowed, and certified by the registrar accordingly (§ 218).

Every certificate so given, is sent by post or otherwise to the person making the application, his attorney or agent, and a copy thereof is sent to the accountant-general. Upon delivery to him of the *original certificate*, together with a receipt in writing, purporting to be a receipt from the master or owner making the application, the accountant-general pays to the person so delivering the same, out of the monies applicable to her Majesty's naval service, and granted by parliament for that purpose, the amount mentioned in that certificate, and it and the receipt absolutely discharge the accountant-general and her Majesty for all liability in respect of the monies so paid, or of the said application (§ 219).

Every person, who, in making or supporting any application as aforesaid, to the registrar of the admiralty court, forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any document, and every person, who, in making or supporting such an application, makes or gives, or assists in making or giving, or procures to be made or given, any false evidence or representation, knowing the same to be false, every such person is deemed guilty of a misdemeanor (§ 220).

Wages and Effects of Deceased Seamen.—Whenever any seaman or apprentice belonging to or sent home in a British ship, whether foreign-going or home-trade, on a voyage which is to terminate in the United Kingdom, dies during the voyage, the master must take charge of all money, clothes, and effects which he leaves on board, and can, if he thinks fit, cause all or any of the said clothes and effects to be sold by auction, at the mast or other public auction, and thereupon he must sign an entry, in the official log-book, containing the following particulars:—

(1.) A statement of the amount of the money, and a description of the effects so left by the deceased:

(2.) In case of a sale, a description of each article sold, and the sum received for each:

(3.) A statement of the sum due to the deceased as wages, and the total amount of the deductions (if any) to be made therefrom.

And he must cause this entry to be attested by a mate and one of the crew (§ 194).

The following rules must be observed in the cases now mentioned:—

(1.) If the ship proceeds at once to a port in the United Kingdom, without touching on the way at any foreign port, the master must, within forty-eight hours after his arrival, deliver any effects remaining unsold, and pay any money he has taken charge of, or received from any sail as aforesaid, and also the balance of wages due to the deceased, to the shipping master at the port of destination in the United Kingdom:

(2.) If the ship touches and remains for forty-eight hours at some foreign port, or at some port in her Majesty's dominions abroad, before coming to any port in the United Kingdom, the master must report the case to the British consular officer, or to the officer of customs there, as the case may be, and he must give to that officer any information he requires, as to the destination of the ship and probable length of the voyage. Thereupon, if this officer considers it expedient so to do, he can require the effects, money, and wages to be delivered and paid to him, and, upon this delivery and payment, he gives the master a receipt, and within forty-eight hours after his arrival at his port of destination in the United Kingdom, the master must produce the same to the shipping master there. In such case, the consular officer, or officer of customs, indorses and certifies upon the agreement with the crew, such particulars with respect to this delivery and payment as the Board of Trade requires:

(3.) If the officer foresaid does not require this payment and delivery to be made to him, the master must take charge of the said effects, money, and wages, and within forty-eight hours after his arrival at his port of destination in the United Kingdom, he must deliver and pay the same to the shipping master there:

(4.) In all cases in which any seaman or apprentice dies during the progress of a voyage or engagement, the master must give to the Board of Trade, or to the officer or shipping master as aforesaid, an account, in such form as they respectively require, of the effects, money, and wages so delivered and paid, and no deductions claimed in this account can be allowed, unless verified, if there is an official log-book, by such entry therein as required by the act, and also by such other vouchers (if any) as may be reasonably required by the Board of Trade, or by the officer or shipping master to whom the account is rendered:

(5.) Upon due compliance with the provisions of this section, which relate to acts to be done at the port of destination in the United

Kingdom, the shipping master grants to the master a certificate to that effect, and no officer can clear inwards any foreign-going ship, without production of this certificate (§ 195).

If the master fails so to take charge of the money or other effects of a seaman or apprentice dying during a voyage, or to make such entries in respect thereof, or to procure the attestation to these entries, or to make such payment or delivery of any money, wages, or effects of a seaman or apprentice dying during a voyage, or to give the account thereof, as respectively before directed,—he is accountable for the money, wages, and effects of the deceased seaman or apprentice, to the Board of Trade, and must pay and deliver the same accordingly. For every such offence, the master incurs, in addition, a penalty not exceeding treble the value of the money or effects not accounted for, or, if that value is not ascertained, not exceeding £50 (§ 196).

If any such money, wages, or effects are not duly paid, delivered, or accounted for by the master, *the owner* must pay, deliver, and account for the same, and this money, and these wages, and the value of these effects, are recoverable from him accordingly; and if he fails to account for and pay the same, he, in addition to his liability for the said money and value, incurs the same penalty as is incurred by the master for the like offence. All money, wages, and effects of any seaman or apprentice dying during a voyage, are recoverable in the same courts, and by the same modes of proceeding, by which seamen are entitled to recover their wages (§ 196).

If the seaman or apprentice should die at any place abroad, either in or out of her Majesty's dominions, leaving any money or effects *not on board his ship*, the chief officer of customs or the British consular officer at or nearest to the place, as the case may be, claims and takes charge of that money and these effects, and, if he thinks fit, he can sell all or any of these effects, or any effects of a deceased seaman or apprentice delivered to him under the before-mentioned provisions. Every such officer must remit quarterly, or at such other times as the Board of Trade directs, to the paymaster-general, all monies belonging to, or arising from the sale of the effects of, or paid as the wages of any deceased seaman or apprentice, which have come into his hands in manner before mentioned, and must render such accounts in respect thereof as the Board of Trade requires (§ 196).

Whenever any seaman or apprentice dies *in the United Kingdom*, and is, at the time of his death, entitled to claim from the master or owner of the ship in which he has served, any unpaid wages or effects, the master or owner must pay and deliver or account for the *same to the* shipping-master at the port where the seaman or appren-

tice was discharged, or was to have been discharged, or to the Board of Trade, or as it directs (§ 197).

If the money and effects of a deceased seaman or apprentice paid, delivered, or remitted to the Board of Trade or its agents, including the monies received for any part of the effects which have been sold either before delivery to the board or by its direction, do not exceed in value £50; then, subject to the provisions after mentioned, and to all such deductions for expenses incurred in respect of the seaman or apprentice or of his money and effects, as the board thinks proper to allow, the board may, if it thinks fit so to do, pay and deliver said money and effects,—either to any claimants who can prove themselves, to the satisfaction of the board, either to be his widow or children, or to be entitled to the effects of the deceased under his will (if any), or under the statute of distributions of the effects of intestates, or under any other statute, or at common law,—or to be entitled to take out probate or letters of administration or confirmation, although no probate or letters of administration or confirmation have been taken out, and the board is thereby discharged from all further liability in respect of the money and effects so paid and delivered; or the board may, if it thinks fit so to do, require probate or letters of administration or confirmation to be taken out, and thereupon pay and deliver the money and effects to the legal personal representatives of the deceased. All claimants to whom such money and effects are so paid or delivered, must apply the same in due course of administration, and, if the money and effects exceed in value the sum of £50; then, subject to the provisions after mentioned, and to deduction for expenses, the board pays and delivers the same to the legal personal representative of the deceased (§ 199).

In cases where a deceased seaman or apprentice has left a will, the Board of Trade has the following powers:—

(1.) It may, in its discretion, refuse to pay or deliver the wages or effects as aforesaid, to any person claiming to be entitled thereto, under a will made on board ship, unless that will is in writing, and is signed or acknowledged by the testator, in the presence of the master or first or only mate of the ship, and is attested by the master or mate:

(2.) It may, in its discretion, refuse to pay or deliver the wages or effects as aforesaid to any person, not being related to the testator by blood or marriage, who claims to be entitled thereto, under a will made elsewhere than on board ship, unless this will is in writing, and is signed or acknowledged by the testator in presence of two witnesses, one of whom must be some shipping master appointed under the act, or some minister, or officiating minister, or curate of

the place in which the same was made, or in a place where there are no such persons, some justice of peace, or some British consular officer, or some officer of customs, and is attested by these witnesses:

Whenever a claim made under a will, is rejected by the Board of Trade, on account of that will not being made and attested as before required, the wages and effects of the deceased are to be dealt with as if no will had been made (§ 200).

With respect *to creditors* of a deceased seaman or apprentice, the following rules are to be observed:—

(1.) No creditor is entitled to claim from the board, the wages or effects of any such seaman or apprentice, or any part thereof, by virtue of letters of administration taken out by him, or by virtue of confirmation in Scotland as executor creditor:

(2.) No such creditor is entitled, by any means whatever, to payment of his debt out of these wages and effects, if the debt accrued more than three years before the death of the deceased, or if the demand is not made within two years after his death:

(3.) Subject as aforesaid, the steps to be taken for procuring payment of a debt, are as follows:

Every person making a demand as a creditor, must deliver to the Board of Trade, an account in writing, in such form as it requires, subscribed with his name, stating the particulars of his demand and the place of his abode, and verified by his declaration made before a justice:

(4.) If, before the demand is made, any claim to the wages and effects of the deceased, made by any person interested therein, as his widow or child, or under a will, or under the statute for the distribution of the effects of intestates, or under any other statute, or at common law, has been allowed,—the Board of Trade gives notice to the creditor of the allowance of this person's claim, and, thereupon, the creditor has the same rights and remedies against that person, as if he or she had received the wages and effects as the legal personal representative of the deceased:

(5.) If no claim by any such person has been allowed, the board proceeds to investigate the creditor's account, and, for that purpose, can require him to prove the same, and to produce all books, accounts, vouchers, and papers relating thereto. If, by these means, the creditor duly satisfies the board of the justice of his demand, either in whole or in part, the same is allowed and paid accordingly, so far as the assets in the hands of the board extend for that purpose, and this payment discharges the board from all further liability in respect of the money so paid. But, if the board is not satisfied, or if the books, accounts, vouchers, or papers as aforesaid are not

produced, and no sufficient reason is assigned for not producing them, the demand is disallowed:

(6.) In any case whatever, the Board of Trade can delay the investigation of any demand made by a creditor for payment of his debt, for one year from the time of the first delivery of the demand. If, in the course of that time, a claim to the wages and effects of the deceased is made and sustained as before required, by any person interested therein, as widow or child, or under a will, or under the statute for the distribution of the effects of intestates, or under any other statute, or at common law, the board can pay and deliver the same to that person. Thereupon the creditors have the same rights and remedies against that person as if he or she had received the wages and effects as the personal representative of the deceased (§ 201).

In case of the wages or effects of deceased seamen or apprentices received by the board, to which no claim is substantiated within six years after having been so received, it is in the absolute discretion of the board, if any subsequent claim is made, either to allow or refuse the same. Subject to the provisions before mentioned (see *Discipline of Ship*, p. 213), the board can, from time to time, pay any monies arising from the unclaimed wages and effects of deceased seamen, which, in the opinion of the board, it is not necessary to retain for the purpose of satisfying claims, into the receipt of her Majesty's Exchequer, in such manner as the Treasury directs, and these monies are carried to and form part of the Consolidated Fund (§ 202).

Under these provisions, any monies or effects belonging to seamen invalided or discharged from any of her Majesty's ships, and sent home in merchant ships, which are paid, remitted, or delivered to the Board of Trade, or its agents, are paid over and disposed of in such manner as the accountant-general of the navy directs (§ 204).

Every person who, for the purpose of obtaining, either for himself or for another, any money or effects of a deceased seaman or apprentice, forges, assists in forging, or procures to be forged,—or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any document purporting to shew, or assist in shewing, a right to such wages or effects, and every person who, for the purpose aforesaid, gives or makes, or procures to be given or made, or assists in giving or making, or procuring to be given or made, any false evidence or representation, knowing the same to be false,—that person is punishable with penal servitude for a term not exceeding four years, or with imprisonment, with or without hard labour, for any *period not* exceeding two years; or, if summarily prose-

cuted and convicted, by imprisonment, with or without hard labour, for any period not exceeding six months (§ 203).

LEAVING SEAMEN ABROAD.—Whenever any British ship is transferred or disposed of at any place out of her Majesty's dominions, and any seaman or apprentice belonging to that ship does not, in the presence of some British consular officer, or, if there is no British consular officer there, in the presence of one or more respectable British merchants residing at the place, and not interested in the ship, signify his consent in writing to complete the voyage, if continued; and whenever the service of any seaman or apprentice belonging to any British ship terminates at any place out of her Majesty's dominions, the master must give to every such seaman or apprentice a discharge in the form sanctioned by the board as after mentioned; and in the case of a certified mate, he must return to him his certificate. Besides paying the wages to which each such seaman or apprentice is entitled, the master must also provide him with adequate employment on board some other British ship bound to the port in her Majesty's dominions at which he was originally shipped, or to such other port in the United Kingdom as is agreed on by him, or must furnish the means of sending him back to such port, or provide him with a passage home, or deposit with the consular officer, or the merchant or merchants as aforesaid, such a sum of money as is deemed sufficient to defray the expenses of his subsistence and passage-money (§ 205).

The consular officer, or the merchant or merchants, indorse upon the agreement of the ship which the seaman or apprentice is leaving, the particulars of this payment, provision, or deposit; and if the master refuses or neglects to comply with the requirements of this section, these expenses, if defrayed by the consular officer, or by any other person, unless the seaman or apprentice has been guilty of barratry,* are a charge upon the ship to which that seaman or apprentice belonged, and upon the owner for the time being, and can be recovered against these owners, with costs, at the suit of the consular officer or other person defraying the expenses. Or, in case the same has been allowed to the consular officer out of the public monies, these expenses can be recovered as a debt due to her Majesty, either by ordinary process of law, or in the manner in which seamen are enabled to recover their wages; and, if these expenses are defrayed by the seaman or apprentice, they are recoverable as wages due to him (§ 205).

If the master, or any other person belonging to a British ship, wrongfully forces on shore and leaves behind, or otherwise wrongfully leaves

* *Barratry* is any *fraudulent* act of the master or mariners committed to the prejudice of the owners of the ship.—*Abbot*, chap. v. sec. 1.

behind, in any place on shore or at sea, *in or out* of her Majesty's dominions, any seaman or apprentice belonging to his ship, before the completion of the voyage for which that person was engaged, or before the return of the ship to the United Kingdom, he, for each such offence, is deemed guilty of a misdemeanor (§ 206).

If the master of a British ship does any of the following things, he is also deemed, for each default guilty of a misdemeanor:—

(1.) Discharges any seaman or apprentice in any place situate in any British possession abroad (except the possession in which he was shipped) without prevously obtaining the sanction, in writing, of some public shipping-master, or other officer duly appointed by the local government on that behalf, or (in the absence of any such functionary) of the chief officer of customs, resident at or near the place where the discharge takes place.

(2.) Discharges any seaman or apprentice at any place *out of* her Majesty's dominions, without previously obtaining the sanction, so indorsed upon the agreement as aforesaid (§ 205), of the British consular officer there, or, in his absence, of any two respectable merchants resident there.

(3.) Leaves behind any seaman or apprentice at any place situate in any British possession abroad, *on any ground whatever*, without previously obtaining a certificate in writing, so indorsed as aforesaid, from such public officer or person as aforesaid (1.), stating the fact and the case thereof, whether this cause be unfitness or inability to proceed to sea, or desertion, or disappearance.

(4.) Leaves behind any seaman or apprentice *at any place out* of her Majesty's dominions, on shore or at sea, *on any ground whatever*, without previously obtaining the certificate, indorsed in manner and to the effect now mentioned (3.), of the British consular officer there, or, in his absence, of two respectable British merchants, if there is any such at or near the place where the ship then is.

And these functionaries must, and the said merchants may, examine into the grounds of such proposed discharge, or into the allegation of such proposed unfitness, inability, or desertion or disappearance as aforesaid, in a summary way, and can for that purpose, if they think fit so to do, administer oaths, and can either grant or refuse such sanction or certificate, as appears to them to be just (§ 207).

Upon the trial of any information, indictment, or other proceeding against any person for discharging or leaving behind any seaman or apprentice, contrary to the foregoing provisions, it lies upon such person, either to produce the sanction or certificate before required, or to prove that he had obtained the same previously to having dis-

charged or left behind the seaman or apprentice, or that it was impracticable for him to obtain this sanction or certificate (§ 208).

Every master of a British ship who leaves any seaman or apprentice on shore at any place abroad, *in or out* of her Majesty's dominions, under a certificate of his unfitness or inability to proceed on the voyage, must deliver to one of the functionaries (officials) before mentioned (1.), or, in their obsence, to the merchants by whom that certificate is signed (3.), or, if there is but one respectable merchant resident at the place, to him, a full and true account of the wages due to that seaman or apprentice, this account, when delivered to a consular officer, being in duplicate; and the master must pay the same either in money or by a bill drawn upon his owner (§ 209).

In the case of a bill so drawn, the functionary, merchants, or merchant as now mentioned, certify, by indorsement thereon, that the same is drawn for money due on account of a seaman's wages, and he also indorses upon the ship's agreement the amount for which this bill is drawn, and such further particulars of the case as the Board of Trade requires. If the master refuses or neglects to deliver a full account of these wages, or to pay the amount thereof in money or by bill as before required, he is liable, for every such offence or default, and in addition to payment of the wages, to a penalty not exceeding £10. If the master delivers a false account of these wages, he incurs, for every such offence, and in addition to payment of the wages, a penalty not exceeding £20 (§ 209).

Every payment as last mentioned, whether by bill or in money, if made in a British possession, must be made to the seaman or apprentice himself, and, if made out of her Majesty's dominions, to the consular officer; who, if satisfied with the account, indorses on one of the duplicates of it a receipt for the amount paid or bill delivered, and returns the same to the master; and, within forty-eight hours after the master's return to his port of destination in the United Kingdom, he must deliver the same to the shipping-master there (§ 210).

The consular officer retains the other duplicate of this account, and, if the seaman or apprentice subsequently obtains employment at or otherwise quits the port, the consular officer deducts, out of the sum received by him as aforesaid, any expenses which have been incurred by him in respect of the subsistence of the seaman or apprentice under the foresaid provisions (except such as the master or owner is required by the act to pay, § 213 *infra*), and he pays the remainder to the seaman or apprentice, and also delivers to him an account of the sums so received and expended on his behalf. If any seaman or apprentice dies before his ship quits the port, the

consular officer deals with the same, in the manner after specified in that behalf (§ 213); and if the seaman or apprentice is sent home under the provisions in § 205, the consular officer accounts for the amount so received to the Board of Trade. After deducting any expenses which have been duly incurred in respect of that seaman or apprentice (except such as the master or owner is required to pay), the amount is dealt with as wages to which he is entitled, and paid accordingly (§ 210).

The governors, consular officers, and other officers of her Majesty in foreign countries must, and in places where there are no such governors, any two *resident British* merchants may provide for the subsistence of all seamen and apprentices, being subjects of her Majesty, who had been shipwrecked, discharged, or left behind at any place abroad, whether from any ship employed in the merchant service or from any of her Majesty's ships; or who have been engaged by any person, acting either as principal or agent, to serve in any ship belonging to any foreign power, or to the subject of any foreign state, and who are in distress abroad, until such time as they are able to provide them with a passage home. For this purpose, these governors, officers, or merchants cause such seamen or apprentices to be put on board some ship belonging to any subject of her Majesty, bound to any port of the United Kingdom, or to the British possession to which they belong (as the case requires), which is in want of men to make up its compliment, and in default of any such ship, they provide them with a passage home, as soon as possible, in some ship belonging to a subject of her Majesty so bound as aforesaid; and they indorse on the agreement of the ship on board of which a seaman or apprentice is so taken or sent, the name of every person so sent on board thereof, with such particulars concerning the case as the Board of Trade requires, and there is allowed for the subsistence of any such seaman or apprentice, such a sum per day as the Board of Trade from time to time appoints. The amount due in respect of this allowance is paid out of any moneys applicable to the relief of distressed British seamen, and granted by Parliament for the purpose, on the production of the bills of disbursements, with proper vouchers (§ 211).

The master of every British ship so bound as aforesaid must receive and afford a passage and subsistence to all seamen and apprentices whom he is required to take on board his ship under the foregoing provisions, not exceeding one for every fifty tons burthen; and he must, during the passage, provide every such seaman or apprentice with a proper berth or sleeping place, effectually protected against the sea and weather. On the production of a certificate, signed by the governor, consular officer, or merchants, by

whose directions any such seaman or apprentice was received on board, stating the number and names of these seamen or apprentices, and the time when each of them respectively was received on board, and on a declaration made by such person (the master) before a justice, verified by the registrar-general of seamen, stating the number of days during which each seaman or apprentice received subsistence and was provided for as aforesaid on board his ship, and stating also the number of men and boys forming the compliment of his crew, and the number of seamen and apprentices during such time as the seamen or apprentices first referred to have been on board his ship; and every variation (if any) of that number, such person (the master) is entitled to be paid out of the foresaid monies applicable to the relief of distressed British seamen, in respect of the subsistence and passage of every seaman or apprentice so conveyed, subsisted, and provided for by him, such sum per day as the Board of Trade from time to time appoints. If any person, having charge of any such ship, fails to receive on board his ship, or to give a passage home, or subsistence to, or to provide for any seaman or apprentice as aforesaid, contrary to the foregoing provisions, he incurs a penalty not exceeding £100 for each seaman or apprentice with respect to whom he makes this default or refusal (§ 212).

If any seaman or apprentice belonging to any British ship is discharged or left behind *at any place out* of the United Kingdom without full compliance on the part of the master with all the foregoing provisions on that behalf, and he becomes distressed and is relieved under the provisions of the act; or if any subject of her Majesty, after having been engaged by any person, whether acting as principal or agent, to serve in any ship belonging to any foreign power, or to the subject of any foreign power, becomes distressed and is relieved as aforesaid, the wages (if any) due to that seaman or apprentice, and all expenses incurred for his subsistence, necessary clothing, conveyance home, and burial, in case he should die abroad before reaching home, are a charge upon the ship, whether British or foreign, to which he so belonged as aforesaid; and the Board of Trade can, in name of her Majesty (besides suing for any penalties which may have been incurred), sue for and recover the said wages and expenses, with costs, either from the master of the ship, or from the person who is owner thereof for the time being, or in case of an engagement for service in a foreign ship, from such owner or master, or from the person by whom such engagement was made as aforesaid. These sums are recoverable, either in the same manner as other debts due to her Majesty, or in the same manner, and by the same form or process in which wages due to the seaman would be recoverable by him; and, in any proceedings for that

purpose, production of the account (if any) furnished as is before provided in such cases (§§ 209, 210), together with proof of payment by the Board of Trade or by the paymaster-general, of the charges incurred on account of any such seaman, apprentice, or other person, is sufficient evidence that he was relieved, conveyed home, or buried (as the case may be) at her Majesty's expense (§ 213).

By the Merchant Shipping Amendment Act, 1855, it is enacted, that the board can issue instructions concerning the relief to be administered to distressed seamen and apprentices in pursuance of the foregoing sections 211 and 212 of the Merchant Shipping Act, and by such instructions can determine in what cases, and under what circumstances and conditions, this relief is to be administered; and all powers of recovering expenses with respect to distressed seamen and apprentices, which, by section 213 of that act, are given to the Board of Trade, extend to all expenses incurred by any foreign government for the foresaid purposes, and repaid to that government by her Majesty's government, and these powers likewise extend to any expenses incurred by the conveying home of such seamen or apprentices, in foreign as well as in British ships (18 and 19 Vict., c. 91, § 16).

All provisions respecting the relief of distressed seamen and apprentices, being subjects of her Majesty, which are contained in the sections of the Merchant Shipping Act before referred to, and in this section, extend to such seamen and apprentices, not being subjects of her Majesty, as are reduced to distress in foreign parts, by reason of their having been shipwrecked, discharged, or left behind, from any British ship; subject, nevertheless, to such modifications and directions concerning the cases in which relief is to be given to such foreigners, and the country to which they are to be sent, as the Board of Trade may, under the circumstances, think fit to make and issue (§ 16).

Power of Making Complaint.—If, whilst on board any ship, a seaman or apprentice states to the master, that he desires to make a complaint to a justice of peace, consular officer, or naval officer in command of any of her Majesty's ships, against the master or any of the crew, if the ship is then at a place where is a justice or any of these officers, so soon as the service of the ship will permit, and if the ship is not then at such a place, so soon after her first arrival at such a place as the service of the ship will permit, the master must allow that seaman or apprentice to go on shore, or send him ashore in proper custody, so that he may be enabled to make his complaint. In default, the master incurs a penalty not exceeding £10 (§ 232).

NAVAL COURTS ON THE HIGH SEAS AND ABROAD.—Any officer in command of any of her Majesty's ships on a foreign station, or, in the absence of such an officer, any consular officer, can summon a court, termed a "Naval Court," in the following cases:

(1.) Whenever a complaint, which appears to that officer to require immediate investigation, is made to him by the master of a British ship, or by a certified mate, or by any one or more of the seamen belonging to such ship:

(2.) Whenever the interest of the owner of a British ship, or of the cargo of such ship, appears to that officer to require it:

(3.) Whenever any British ship is wrecked or abandoned, or otherwise lost, at or near the place where such officer may be, or whenever the crew or part of the crew of any British ship which has been wrecked, abandoned, or lost abroad, arrives at that place (§ 260).

Every naval court must consist of not more than five, and not less than three members, of whom, if possible,—one must be an officer in her Majesty's naval service, not below the rank of lieutenant,—one a consular officer,—and one a master of a British merchant ship, and the rest can be either officers in her Majesty's naval service, masters of British ships, or British merchants. This court may include the naval or consular officer summoning the same, but must not include the master or consignee of the ship to which the parties complaining or complained against belong; and the naval officer in the court, if there is only one, or, if there is more than one, the naval or consular officer, who, according to any regulations for settling their respective ranks in force for the time being, is of the highest rank, must be president of the court (§ 261).

This naval court hears and investigates the complaint brought before it, or the cause of the wreck or abandonment (as the case may be), and, for that purpose, can summon and compel the attendance of parties and witnesses, and administer oaths, and order the production of documents, and must conduct the investigation in such manner as to give any person against whom any charge is made, an opportunity of making a defence (§ 262).

After hearing the case, this naval court can exercise the following powers:

(1.) It can, if unanimous that the safety of the ship or crew, or the interest of the owner absolutely requires it,—supersede the master, and can appoint another person to act in his stead; but no such appointment can be made without the consent of the consignee of the ship, if then at the place:

(2.) It can discharge any seaman from his ship:

(3.) It can order the wages of any seaman so discharged, or any

part of these wages, to be forfeited, and can direct the same either to be retained by way of compensation to the owner, or to be paid into the receipt of her Majesty's exchequer, in the same manner as other penalties and forfeitures under the act:

(4.) It can decide any questions as to wages, or fines, or forfeitures, arising between any of the parties to the proceedings:

(5.) It can direct that all or any of the costs incurred by the master or owner, in procuring the imprisonment of any seaman or apprentice in a foreign port, or in his maintenance whilst so imprisoned, must be paid out of and deducted from the wages of that seaman or apprentice, whether then or subsequently earned.

(6.) It can exercise the same powers, with regard to persons charged before it with the commission of offences at sea or abroad, as are given by the act to British consular officers (see *infra*, § 268).

(7.) It can order the costs of the proceedings before it, (if any), or any portion thereof, to be paid by any of the parties thereto, and can order any person making a frivolous or vexatious complaint, to pay compensation for any loss or delay caused thereby; and any costs or compensation so ordered, must be paid by that person accordingly, and can be recovered in the same manner in which seamen's wages are recoverable, or, if the case admits, can be deducted from his wages:

All orders duly made by such naval court under the powers given to it by the act, are, in all subsequent legal proceedings, to be deemed conclusive as to the rights of the parties (§ 263). And all orders made by this naval court must, whenever practicable, be entered in the official log-book of the ship to which the parties belong, and must be signed by the president of the court (§ 264).

Each naval court must make a report to the Board of Trade, containing the following particulars:—

(1.) A statement of the proceedings, with the order made by the court, and a report of the evidence:

(2.) An account of the wages of any seaman or apprentice who is discharged from his ship by the court:

(3.) If summoned in order to inquire into a case of wreck or abandonment, a statement of the opinion of the court, as to the cause of that wreck or abandonment, with such remarks on the conduct of the master and crew, as the circumstances require:

This report must be signed by the president of the court; and every document, purporting to be such a report, and to be so signed, if produced out of the custody of some officer of the Board of Trade, is deemed to be such report, unless the contrary is proved, and is to be received in evidence, subject to all just exceptions (§ 265).

Any person who wilfully, and without due cause, prevents or obstructs the making of any such complaint as last aforesaid, or the conduct of any case or investigation by any naval court, incurs, for each such offence, a penalty not exceeding £50; or he is liable to imprisonment, with or without hard labour, for any period not exceeding twelve weeks (§ 266).

In addition to the foregoing powers given to a Naval Court by the Merchant Shipping Act, a Naval Court so summoned to hear any complaint touching the conduct of the master or any of the crew of a ship,—has power to try the master or any of the crew for any offences against the Merchant Shipping Act 1854, in respect of which two Justices would, if the case were tried in the United Kingdom, have power to convict summarily, and, by order duly made, to inflict the same punishment for such offences, which, in the case foresaid, two Justices might inflict upon summary conviction. But, in cases where an offender is sentenced to imprisonment, this sentence must be confirmed in writing, by the senior naval or consular officer present at the place where the court is held, and the place of imprisonment, whether on land or on board ship, must be approved by him, as a proper place for the purpose. Copies of all sentences made by any Naval Court summoned to hear any such complaint as aforesaid, must be sent to the Commander-in-Chief or Senior Naval Officer of the station (18 & 19 Vict., c. 91, § 18).

Crimes Committed on the High Seas and Abroad.—All offences against property or person committed in or at any place,—*either ashore or afloat*,—out of her Majesty's dominions, by any master, seaman or apprentice, who, at the time when the offence is committed, is, or, within three months previously, has been employed in any British ship, are deemed to be offences of the same nature respectively, and are liable to the same punishment respectively; and are inquired of, heard, tried, determined, and adjudged in the same manner, by the same courts, and in the same places, as if these offences had been committed within the jurisdiction of the Admiralty of England. The costs and expenses of the prosecution of any such offence can be directed to be paid, as in the case of costs and expenses of prosecutions for offences committed within the jurisdiction of the Admiralty of England (17 & 18 Vict., c. 184, § 267).

The following rules are to be observed with respect to offences committed on the high seas or abroad:—

(1.) Whenever any complaint is made to any British consular officer, of any of the offences mentioned in the foregoing section, or of any offence on the high seas, having been committed by any master, seaman, or apprentice, belonging to any British ship, that

consular officer can inquire into the case upon oath, and,—if the case so requires,—he can take any steps in his power for the purpose of placing the offender under necessary restraint; and of sending him, as soon as practicable, in safe custody to the United Kindom, or to any British possession, in which there is a court capable of taking cognizance of the offence, in any ship belonging to her Majesty, or to any of her subjects, to be there proceeded against according to law:

(2.) For that purpose, this consular officer can order the master of any ship, belonging to any subject of her Majesty, bound to the United Kingdom, or to such British possession as aforesaid, to receive, and afford a passage and subsistence during the voyage to any such offender as aforesaid, and to the witnesses,—so that such master be not required to receive more than one offender for every 100 tons of his ship's registered tonnage, or more than one witness for every 50 tons of that tonnage; and the consular officer indorses upon the agreement of the ship, such particulars with respect to any offenders or witnesses sent in her, as the Board of Trade requires:

(3.) On his ship's arrival in the United Kingdom, or in such British possession as aforesaid, the master must give every offender, so committed to his charge, into the custody of some police officer or constable, who takes the offender before a Justice of the Peace, or other Magistrate empowered by law to deal with the matter, who must deal with the matter as in cases of offences committed upon the high seas:

And any master, as aforesaid, who, when required by any British consular officer to receive and afford a passage and subsistence to any offender or witness, does not receive him and afford such passage and subsistence to him,—or who does not deliver any offender committed to his charge into the custody of some police officer or constable, as before directed—he, for each such offence, incurs a penalty not exceeding £50. The expense of imprisoning an offender, and of conveying him and the witnesses to the United Kingdom or to such British possession as aforesaid, in any manner other than in the ship to which they respectively belong, is to be part of the costs of the prosecution, or is to be paid as costs incurred on account of her Majesty's seafaring subjects left in distress in foreign parts (§ 268).

Whenever any case of death happens on board any foreign-going ship, on the arrival of that ship at the port where the crew is discharged,—the shipping-master must inquire into the cause of this death, and he makes an indorsement on the list of the crew delivered to him, as required by the act, to the effect that the statement

of the cause of death therein contained is, in his opinion, true or otherwise, as the result of the inquiry requires. For the purpose of this inquiry, the shipping-master has the powers given to inspectors appointed by the Board of Trade, under sects. 15 & 16 of the Merchant Shipping Act, and if, in the course of this inquiry, it appears to him, that any death as aforesaid, has been caused by violence or improper means, he must either report the matter to the Board of Trade, or, if the emergency of the case so requires, he must take immediate steps for bringing the offender or offenders to justice (§ 269).

Whenever, in the course of any legal proceedings, instituted in any part of her Majesty's dominions before any judge or magistrate, or before any person authorised by law, or by consent of parties, to receive evidence, the testimony of any witness is required in relation to the subject-matter of that proceeding,—then, if this proceeding is instituted in the United Kingdom, upon due proof that the witness cannot be found in that kingdom,—or, if instituted in any British possession, upon due proof that he cannot be found in the same possession, any deposition that this witness may have previously made on oath, in relation to the same subject-matter, before any Justice or Magistrate in her Majesty's dominions, or any British consular officer elsewhere, is admissible in evidence, subject to the following restrictions:—

(1.) If this deposition was made in the United Kingdom, it is not admissible in any proceeding instituted in the United Kingdom:

(2.) If this deposition was made in any British possession, it is not admissible in any proceeding instituted in the same British possession:

(3.) If the proceeding is criminal, it is not admissible unless made in the presence of the party accused:

Every deposition so made as aforesaid, must be authenticated by the signature of the judge, magistrate, or consular officer, before whom the same is made; and, when the same is taken in a criminal matter, this judge, magistrate, or consular officer must certify, if the fact is so, and that the accused was present at the taking thereof; but it is not necessary, in any case, to prove the signature or official character of the person appearing to have signed any such deposition. In any criminal proceeding, this certificate as aforesaid is sufficient evidence of the accused having been present in manner therein certified, unless the contrary is proved. But nothing in this section affects any case in which depositions, taken in any proceeding, are rendered admissible in evidence by any act of Parliament, or by any act or ordinance of any colony, so far as regards that colony, or to interfere with the power of any colonial legislature to make such depositions admissible in evidence, or to interfere with

the practice of any court in which depositions not authenticated as before mentioned are admissible (§ 270).

If any person, being a British subject, charged with having committed any crime or offence on board any British ship on the high seas or in any foreign port or harbour; or if any person, not being a British subject, charged with having committed any crime or offence on board any British ship on the high seas, is found within the jurisdiction of any court of justice in her Majesty's dominions, which would have had cognisance of that crime or offence if committed within the limits of its ordinary jurisdiction, this court has jurisdiction to hear and try the case, as if that crime or offence had been committed within these limits. But nothing in this section can be construed to alter or interfere with the act 12 and 13 Vict., c. 96, intituled "*An Act to provide for the Prosecution and Trial in her Majesty's Colonies of Offences committed within the Jurisdiction of the Admiralty*" (18 & 19 Vict., c. 91, § 21).*

REMITTANCE OF WAGES, AND SAVINGS' BANKS FOR SEAMEN.—If the Board of Trade so directs, facilities can be given for remitting the wages and other monies of seamen and apprentices to their relatives or other persons, by means of money-orders issued by

* The act here referred to proceeds on the preamble (1.) of the statute 10 and 11 Will. III. c. 7, intituled "An Act for the more effectual Suppression of Piracy," by which it is enacted, "that all piracies, felonies, and robberies committed on the sea, or in any haven, river, creek, or place where the admiral or admirals have power, authority, or jurisdiction, may be examined, inquired of, tried, heard, and determined and adjudged, at any place at sea or upon the land, in any of his Majesty's islands, plantations, colonies, dominions, forts, and factories, to be appointed for that purpose by the King's commissioner, in the manner therein directed, and according to the civil law and the method and rules of Admiralty;" and (2.) of the statute 46 Geo. III. c. 54, intituled "An Act for the Speedy Trial of Offences committed in distant Parts beyond the Sea," by which it is enacted, "that all treasons, piracies, felonies, robberies, murders, and other offences of what nature or kind soever, committed upon the sea, or in any haven, creek, or place where the admiral or admirals have power, authority, or jurisdiction, may be inquired of, tried, heard, determined, and adjudged, according to the common course of the laws of the realm used for offences committed upon the land within this realm, and not otherwise, in any of his Majesty's islands," &c.; and by the present statute it is enacted, "that if any person within any colony be charged with any treason &c., committed upon the sea, &c., or if any person charged with the commission of any such offence upon the sea, &c., shall be brought for trial to any colony; then, and in every such case, all magistrates, justices of the peace, public prosecutors, &c. shall have and exercise the same jurisdiction and authorities for inquiring of, trying, hearing, &c. such offences, and they are hereby respectively authorised, empowered, and require to institute and carry on all such proceedings for the purpose of bringing such person so charged as aforesaid to trial and for and auxiliary to and consequent upon the trial of any such person for any such offence wherewith he may be charged as aforesaid, as by the law of such colony would and ought to have been had and exercised, or instituted and carried on by them respectively, if such offence had been committed, and such person had been charged with having committed the same upon any water situated within the limits of such colony, and within the limits of the local jurisdiction of the courts of criminal jurisdiction in such colony" (§ 1).

shipping-masters; and the board can make regulations concerning these orders, and the persons by or to whom, and the mode and time in and at which the same are to be paid, and can from time to time repeal or alter any such regulations. All these regulations, so long as they are in force, are binding upon all persons interested, or claiming to be interested, in these orders, as well as upon the officers employed in issuing or paying the same; and no legal proceedings can be instituted against the Board of Trade or against any shipping-master or other public officer employed about these orders, on account of any such regulations, or on account of any act done or left undone in pursuance thereof, or on account of any refusal, neglect, or omission to pay any such money-order, unless this refusal, neglect, or omission arises from fraud or wilful omission on the part of the person against whom the proceedings are instituted (17 and 18 Vict., c. 104, § 177).

In any case in which it thinks fit so to do, the board can cause the amount of any such money-order as aforesaid to be paid to the person to whom or in whose favour the same has been granted, or to his personal representatives, legatees, or next of kin, notwithstanding that this order may not be in his or their possession; and in all such cases, from and after this payment, the Board of Trade, and every shipping-master or other officer of the board, are freed from all liability in respect of such order (§ 178).

Every shipping-master, or other public officer, who grants or issues any money-order with a fraudulent intent, is deemed guilty, in England or Ireland, of felony; and, in Scotland, of a high crime and offence, and is liable to be kept in penal servitude for a term not exceeding four years (§ 179).

On the application and recommendation of the Board of Trade, the Commissioners for the reduction of the national debt, or the comptroller-general acting under them, can establish savings' banks at such ports and places within the United Kingdom, either in the shipping offices established in the ports or elsewhere, as may appear expedient, and can appoint a treasurer to receive from or on account of seamen, or the wives and families of seamen, deposits to an amount not exceeding £150 in the whole, in respect of any one account, under such regulations as may be prescribed by the commissioners or by the comptroller-general; and these regulations are binding on all these treasurers and depositors, and the commissioners can remove these treasurers and appoint others in their place. All the provisions of the savings' banks acts now in force, except so far as relates to the annual amount of deposits, apply to all savings' banks which may be established under the authority of the Merchant Shipping Act, and to the treasurers and depositors as

aforesaid (§ 180). This enactment relating to savings' banks applies to all seamen, and to their wives and families, whether the seamen belong to the royal navy or to the merchant service, or to any other sea service (18 & 19 Vict., c. 91, § 17).

It is understood that no regulations have hitherto been issued by the commissioners, or the comptroller-general, or the Board of Trade, for the savings' banks here referred to; and, therefore, seamen ought to be cautious in making deposits with savings' banks connected with shipping offices or sailors' homes, until they have distinctly ascertained the principles upon which these banks are constituted, and the parties to whom responsibility attaches.

Discharge and Payment of Wages.—In the case of all British foreign-going ships, in whatever part of her Majesty's dominions the same are registered, all seamen discharged in the United Kingdom, must be discharged and receive their wages in the presence of a shipping-master duly appointed, except in cases where some competent court otherwise directs; and any master or owner of a foreign-going ship, who discharges any seaman belonging thereto, or, except as now mentioned, pays his wages, within the United Kingdom in any other manner, incurs a penalty not exceeding £10. In the case of home trade ships,—if the owner or master so desires,—seamen can be discharged and receive their wages in like manner (17 & 18 Vict., c. 104, § 190).

The master or owner of every ship must pay to every seaman his wages within the respective periods following:—in the case of a home trade ship, within two days after the termination of the agreement, or at the time when the seamen is discharged, whichever first happens; and, in the case of all other ships, (except ships employed in the Southern Whale Fishery, or on other voyages, for which, by the terms of their agreement, the seamen are wholly compensated by shares in the profits of the adventure), within three days after the cargo has been delivered, or within five days after the seaman's discharge, whichever first happens. In all cases, the seaman is entitled, at the time of his discharge, to be paid on account, a sum equal to one-fourth part of the balance due to him; and every master or owner, who neglects or refuses to make payment in manner foresaid, without sufficient excuse, must pay to the seaman a sum not exceeding two days' pay for each of the days, not exceeding ten days, during which payment is delayed beyond the respective periods foresaid, and this sum is recoverable as wages.

Not less than twenty-four hours before paying off or discharging any seaman, the master must deliver to him, or, if he is to be discharged before a shipping-master, to that shipping-master a full and true account, in the form sanctioned by the Board of Trade, of his wages,

and of all deductions to be made therefrom, on any account whatever; and, in default, the master incurs, for each offence, a penalty not exceeding £5; and no deductions from the wages of any seaman (except in respect of any matter happening after this delivery) can be allowed, unless it is included in the account so delivered. During the voyage, the master must enter into a book kept for that purpose, the various matters in respect of which these deductions are made, with the amount of the respective deductions, as they occur; and, if required, he must produce the book at the time of the payment of the wages, and also upon the hearing before any competent authority, of any complaint or question relating to such payments (§ 171).

Upon the discharge of a seaman, or upon the payment of his wages, the master must sign and give him a certificate of his discharge, in the form sanctioned by the Board of Trade, specifying the period of his service, and the time and place of his discharge. If the master fails to sign and give to a seaman this certificate of discharge, he incurs for each such offence, a penalty not exceeding £10; and, upon the discharge of every certified mate, whose certificate of competency or service has been delivered to and retained by the master, he returns this certificate, and, in default, he incurs a penalty not exceeding £20 (§ 172).

Every shipping-master can hear and decide any question whatever between a master or owner and any of the crew, which both parties agree in writing to submit to him,—and every award made by him is final and binding on both parties, and, in any legal proceeding which may be taken before any court of justice, is to be deemed conclusive as to the rights of parties. Neither this submission nor the award requires a stamp; and any document purporting to be such a submission or award is *primâ facie* evidence thereof (§ 173).

In any proceeding relating to the wages, claims, or discharge of a seaman, carried on before a shipping-master, under the provisions of the Merchant Shipping Act, that shipping-master can call upon the owner or his agent, or upon the master, or any mate or other member of the crew, to produce any log-books, papers, or other documents in their respective possession or power, relating to any matter in question in such proceeding, and can call before him, and examine on such matter, any of these persons being then at or near the place. Every owner, agent, master, mate, or other member of the crew, who, when called upon by the shipping-master, does not produce any such paper or document as aforesaid, if in his possession, or does not appear and give evidence, incurs, for each such offence, a penalty not exceeding £5, unless he shews some reasonable excuse for this default (§ 174).

The following rules must be observed with respect to the settlement of wages:—

(1.) Upon the completion before a shipping-master of any discharge and settlement, the master or owner, and each seaman, respectively, must sign, in the presence of the shipping-master, a mutual release, in the form sanctioned by the Board of Trade, of all claims in respect of the past voyage or engagement, and the shipping-master signs and attests it, and retains and transmits it as directed by § 176:

(2.) This release, so signed and attested, operates as a mutual discharge and settlement of all demands between the parties thereto, in respect of the last voyage or engagement:

(3.) A copy of this release, certified under the hand of the shipping-master, to be a true copy, is given by him to any party thereto requiring the same; and this copy is receivable in evidence upon any future question touching the foresaid claims, and has all the effects of the original of which it purports to be a copy:

(4.) In cases in which discharge and settlement before a shipping-master are required by the act, no payment, receipt, settlement, or discharge otherwise made, operates or can be admitted as evidence of the release or satisfaction of any claim:

(5.) Upon any payment being made by a master before a shipping-master, the latter, if required, signs, and gives to the master, a statement of the whole amount so paid; and, as between the master and his employer, this statement is received as evidence that he has made the payment therein mentioned (§ 175).

Upon every discharge so effected before a shipping-master, the master must make and sign, in the form sanctioned by the Board of Trade, a report of the conduct, character, and qualifications of the persons so discharged,—or he can state, in the column left for that purpose in the form, that he declines to give any opinion upon the particulars, or upon any of them. This report, the shipping-master transmits to the Registrar-General of seamen, or to such other person as the Board of Trade directs, and, if desired so to do by any seaman, he gives to him, or indorses on his certificate of discharge, a copy of so much of that report as concerns him (§ 176).

Every person who makes, assists in making, or procures to be made, any false certificate or report of the service, qualifications, conduct, or character of any seaman, knowing the same to be false; or who forges, assists in forging, or procures to be forged; or who fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any such certificate or report; or who fraudulently makes use of any certificate or report; or of any copy of any *certificate or report, which is forged, or altered, or does not belong*

to him,—for each such offence he is deemed guilty of a misdemeanor (§ 176).

MODE OF RECOVERING WAGES.—Any seaman or apprentice, or any person duly authorised on his behalf, can sue in a summary manner, before any two Justices of the Peace, acting in or near to the place, at which the service has terminated, or at which the seaman or apprentice has been discharged, or at which any person, upon whom the claim is made, is or resides; or, in Scotland, either before any two Justices, or before the Sheriff of the county within which any such place is situated, for any amount of wages due to that seaman or apprentice, *not exceeding* £50, over and above the costs of any proceeding for recovery thereof, so soon as the same becomes payable; and every order made in the matter by these Justices, or by the Sheriff, is final (§ 188).

No suit or proceeding for the recovery of wages, under this sum of £50, can be instituted by or on behalf of any seaman or apprentice, in any Court of Admiralty or Vice-Admiralty, or in the Court of Session in Scotland, or in any superior Court of Record in her Majesty's dominions, unless the owner is adjudged bankrupt, or declared insolvent; or unless the ship is under arrest, or sold by the authority of any of these Courts; or unless any Justices acting under the authority of the act, refer the matter to be adjudged by such court; or unless neither the owner nor master is or reside within twenty miles of the place where the seaman or apprentice is discharged or put ashore (§ 189).

No seaman, engaged for a voyage or engagement which is to terminate in the United Kingdom, is entitled to sue in any court abroad for wages, unless he is discharged with the sanction as before required, and with the written consent of the master,—(see *ante* LEAVING SEAMEN ABROAD),—or unless he proves such ill usage on the part of the master, or by his authority, as to warrant reasonable apprehension of danger to his life if he were to remain on board. But, if, on his return to the United Kingdom, a seaman proves that the master or owner has been guilty of any conduct or default which, but for this enactment, would have entitled the seaman to sue for his wages before the termination of the voyage or engagement; he is entitled to recover, in addition to his wages, such compensation, not exceeding £20, as the court hearing the case thinks reasonable (§ 190).

So far as the case permits, every master of a ship has the same rights, liens, and remedies for the recovery of his wages, which, by the Merchant Shipping Act, or by any law or custom, any seaman, *not being* a master, has for the recovery of his wages. If in any *proceeding*, in a Court of Admiralty or Vice-Admiralty, touching

the claim of a master to wages, any right to set off, or counterclaim, is set up, it is lawful for that court, to enter into and adjudicate upon all questions, and to settle all accounts then arising, and outstanding, and unsettled, between the parties to the proceeding, and to direct payment of any balance which is found to be due (§ 191).

Registration of and Returns Respecting Seamen.—On or before the 1st day of February and the 1st day of August in every year, the collector or comptroller of the customs at every port in the United Kingdom, transmits to the registrar-general of seamen a list of all ships registered in that port, and also of all ships whose registers have been transferred or cancelled in that port, since the last preceding returns (§ 278).

All shipping-masters and officers of customs take charge of all documents which are delivered, or transmitted to, or retained by them, in pursuance of the Merchant Shipping Act, and keep them for such time (if any) as may be necessary for the purpose of settling any business arising at the place where the documents come into their hands, or for any other proper purpose; and, if required, produce them for any of these purposes, and then transmit them to the registrar-general of seamen, to be by him recorded and preserved; and, on payment of a moderate fee, as fixed by the Board of Trade, or without payment of any fee, if the board so directs, the registrar allows any person to inspect the same. In cases in which the production of the original of any such document in a court of justice, or elsewhere, is essential, the registrar produces the same, and, in other cases, he makes and delivers to any person requiring it, a certified copy of any such document, or of any part thereof; and any copy, purporting to be so made and certified, is to be received in evidence, and has all the effects of the original, of which it purports to be a copy (§ 277).

By means of the agreements, lists, and other documents transmitted to him, as directed by the act, or by such other means as are in his power, the registrar-general keeps a register of all persons who serve in ships, subject to the provisions of the Merchant Shipping Act (§ 272).

The master of every foreign-going ship, of which the crew is discharged in the United Kingdom, in whatever part of her Majesty's dominions the same is registered, and of every home-trade ship, must make out and sign a list, in the form sanctioned by the Board of Trade, containing the following particulars:—

(1.) The number and date of the ship's register, and her registered tonnage:

(2.) The length and general nature of the voyage or employment:

(3.) The christian names, surnames, ages, and places of birth, of all the crew, including the master and apprentices, their qualities on board, their last ship or other employments, and the dates and places of their joining the ship:

(4.) The names of any members of the crew who have died, or otherwise ceased to belong to the ship, with the times, places, causes, and circumstances thereof:

(5.) The names of any members of the crew who may have been maimed or hurt, with the times, places, causes, and circumstances thereof:

(6.) The wages due to any of the crew who have died, at the times of their respective deaths:

(7.) The clothes, and other effects, belonging to any of the crew who have died, with a statement of the manner in which they have been dealt with, and the money for which any of them have been sold:

(8.) The name, age, and sex, of every person, not being a member of the crew, who dies on board, with the date and cause thereof:

(9.) Every birth which happens on board, with the date thereof, the sex of the infant, and the names of the parents:

(10.) Every marriage which takes place on board, with the date thereof, and the names and ages of the parties (§ 273).

In the case of *foreign-going ships*, the master must, within forty-eight hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver to the shipping-master, before whom the crew is discharged, the list before required; and, if he fails so to do, he incurs, for every default, a penalty not exceeding £5. Thereupon, the shipping-master gives to the master a certificate of this delivery; and no customs' officer can clear inwards any foreign-going ship without production of this certificate, and any such customs' officer can detain the ship until the same is produced (§ 274). The master or owner of every *home-trade ship* must, within twenty-one days after the 20th June and 31st December, in every year, transmit or deliver to some shipping-master in the United Kingdom, the list before required for the preceding half-year, and, in default, he incurs a penalty not exceeding £5; and the shipping-master gives to the master or owner, a certificate of this transmission or delivery; and no customs' officer can grant a clearance or transire for any home-trade ship without the production of this certificate, and any such officer can detain the ship until the same is produced (§ 275).

If any ship ceases, by reason of transfer of ownership, or change of employment, to fall within the definition of a foreign-going, or

of a home-trade ship,—if the ship is then in the United Kingdom, —the master or owner must, within one month, and, if she is elsewhere, within six months, deliver or transmit to the shipping-master, at the port to which the ship has belonged, the list before mentioned, duly made out to the time at which she ceased to be a foreign-going or home-trade ship; and, in default, he incurs, for each offence, a penalty not exceeding £10. And, if any ship is lost or abandoned, the master or owner thereof must, if practicable, and as soon as possible, deliver or transmit to the shipping-master, at the port to which she belonged, the list before mentioned, duly made out to the time of the loss or abandonment, and, in default, he incurs, for each offence, a penalty not exceeding £10 (§ 276).

The following rules must be observed with respect to the delivery of documents to British consular officers:—

(1.) Whenever any ship, in whatever part of her Majesty's dominions the same is registered (except ships whose business it is, for the time being to carry passengers), arrives at any foreign port, where there is a British consular officer, or at any port in any British possession abroad, and remains thereat for forty-eight hours; the master must, within forty-eight hours of the ship's arrival, deliver to the consular officer, or to the chief officer of customs (as the case may be) the agreement with the crew, and all the indentures and assignments of apprenticeships, or, in the case of a ship belonging to a British possession, such of these documents as she is provided with:

(2.) This officer keeps these documents during the ship's stay in that port, and, in cases in which any indorsements upon the agreement are required by the act (see *ante*, §§ 159, 160, 194, 205, 209, 211), he duly makes the same, and returns the said documents to the master, a reasonable time before his departure, with a certificate indorsed on the agreement, stating when the same were respectively delivered and returned:

(3.) If it appears that the required forms have been neglected, or that the existing laws have been transgressed, the officer makes an indorsement to that effect on the agreement, and forthwith transmits a copy of this indorsement, with the fullest information he can collect regarding such neglect or transgression, to the registrar-general of seamen:

And, if any master fails to deliver these documents as aforesaid, he incurs, for every such default, a penalty not exceeding £20; and, in any prosecution for this penalty, it lies upon the master, either to produce the certificate of the consular officers or officer of customs, as before required, or to prove that he duly obtained the same, or that it was impracticable for him to do so (§ 279).

CHAPTER IV.

PREPARATIONS FOR THE VOYAGE, THE COMMENCEMENT OF THE VOYAGE, AND THE INCIDENTS OF THE VOYAGE.

Seaworthiness of the ship—Unseaworthiness—I. From deficiency or defects in hull, rigging, or tackling—(1.) Disrepair or defects in the hull—(2.) Disrepair or defects in the rigging—(3.) Disrepair or defects in the tackling.—II. From incompetency or insufficiency of the crew—(1.) The master—(2.) The crew—(3.) The pilot.—III. From being too heavily or improperly loaded.—IV. From not being properly stored and provisioned—Ballast and Dunnage—Taking in and stowing the cargo—Lights, fog-signals, &c.—Charter-parties and bills of lading—Exceptions in charter-parties and bills of lading—Requisites to obtaining clearance—Pilots—(1.) Pilots' licences (general)—(2.) Trinity-house pilots and sub-commissioners—(3.) Pilot's boats (general)—(4.) Compulsory pilotage (general)—(5.) Compulsory pilotage (Trinity-house)—(6.) Rights, privileges, and remuneration of pilots (general)—(7.) Rates of pilotage (Trinity-house)—(8.) Offences of pilots (general)—Liability of shipowners—(1.) Limitation of liability—(2.) Mode of procedure—(3.) Saving clause.

SEAWORTHINESS OF THE SHIP.—It is an implied and an important condition or warranty in every contract of affreightment, and in every policy of insurance, that the ship shall be in all respects seaworthy for the intended voyage, at the time of her sailing; that is, that she is then tight, staunch, and strong, and furnished with all tackling, apparelling, stores, and equipments, necessary and requisite for the due performance of the agreed on voyage (Abbot, 340; 1 Arnold, 652). It is the very foundation and essence of these contracts; and it is not necessary to inquire, as to the owner's honesty, fairness, or even ignorance, in regard to the vessel's state, the sole question being one of *fact*, was the ship seaworthy or not? and, if she was *not* seaworthy at the commencement of the voyage,—then, the terms of the contracts between the parties have not been complied with (Douglas *v.* Scougall, 4 Dow's Rep. 269); and, therefore, although a shipowner gives due public notice, that he will not be answerable for any loss or damage to any cargo put on board his ship, unless that loss or damage be occasioned by the want of ordinary care and diligence in the master and crew, yet, if the cargo receive damage by reason of the *leakiness and insufficiency* of the ship, he will be answerable to the full extent of that damage, notwithstanding his notice, (Lyon *v.* Mells, 5 East, 428); and, although the ship may have been surveyed by proper judges, and after that being fully and (in the shipbuilder's judgment) effectually repaired, yet, being very leaky in bad weather, and, when opened on a further survey, some timbers near her keel, being found very bad,—it was held, that the implied warranty of seaworthiness had not been *complied* with, however innocently or however cautiously the owner

had acted (Lee *v.* Breech, Park on Ins. 468). This implied warranty of seaworthiness, if not literally complied with, applies equally to insurances effected by the owners of the goods shipped, as to insurances effected by the owners of the ship itself (Oliver *v.* Cowley, Park, 470).

With reference to the policies of insurance, the unseaworthiness of the ship may arise; (1.) From disrepair or defects in her hull, her rigging, or her tackling; (2.) From the incompetency or insufficiency of her master or crew; (3.) From being too heavily or improperly loaded; and (4.) From not being properly stored and provisioned.

I. From Disrepair or Defects in the Hull, Rigging, or Tackling.—(1.) *Disrepair or Defects in the Hull.*—In compliance with this implied warranty of seaworthiness, it is necessary that, when the ship sails on her voyage, her hull is in a state competent to encounter the ordinary perils of the wind and weather, to which she may be exposed in the usual course of her voyage; and, therefore, where a vessel had been originally of only eighty tons burthen, but had been lengthened so as to be of 110 tons burthen, in doing which she had been cut asunder, but her main-hold beams in the centre were not supported or strengthened by *knees*, connecting the beams with the timbers; the old anchor, sails, and rigging were insufficient for the altered state of the ship, but no new anchor, sails, or rigging were provided:—it was held, chiefly, on the ground of want of knees, that the ship was not seaworthy when she sailed (Watt *v.* Morris, 1 Dow, 32). Where also, a ship, before sailing, was put into the hands of the carpenters, who did some repairs to her outer coating, which, in their opinion, comprised all they considered necessary for enabling her to proceed on her voyage;—about a fortnight after sailing, she encountered a severe gale of wind, in which she sprung her bowsprit, and made so much water that the crew could not keep her free with both pumps, and, therefore, the master was obliged, in distress, to bear up for the first port he could make; on a survey there, it was found, that the iron work in general was very much decayed and wrought loose; the timbers and planks, generally speaking, were sound, but decayed about the bolts and nails, which, in some places, were quite gone; several of the lower deck beams and knees were decayed and sprung, and one plank below the lower deck beams on each side, was decayed; and the bowsprit was sprung, and the stem wrought loose, on account of the decayed iron, and labouring of the ship at sea:—it was held, that the vessel was not seaworthy for the voyage when she sailed, whatever might then have been the opinion of the owners, and of the carpenters who repaired her (Douglas *v.* Scougall, *ut supra*). And where a ship, laden with a cargo of mahogany and logwood, encountered a gale of wind on the

day after she left Honduras, and was found to be making ten and a-half inches water per hour, and this leakiness increased, day by day, for a week afterwards, when she was making three and a-half feet water per hour; another gale coming on, she strained so much, that the master, fearing she could not be kept afloat, bore away in distress, for Montego Bay, Jamaica; on a survey there, the reporters found that she was copper-sheathed and iron-fastened, but that these fastenings were decayed,—that three of her beams were broken—the main beam in two places,—that she was making water at the rate of eighteen inches per hour, which the reporters considered to proceed, not from a single leak, but from the loose state of the ship throughout, as she had evidently *spread*, and had not any knees, either fore or aft, or otherwise, to support her lower-deck; and they were of opinion, that her upperworks had alone kept her together:—it was held, that as nothing had occurred, after she had left Honduras Bay, to account for her being in such a state, she was unseaworthy when she sailed from Honduras (Parker *v.* Potts, 3 Dow, 23).

(2.) *Deficiency or Defects in the Rigging.*—The ship must be properly rigged and provided with the requisite standing and running rigging and sails, otherwise she cannot be seaworthy. Consequently, where it appeared, that, at sailing, a ship's sails, to be used in stormy weather, were in good condition, but that her maintopgallant-sails and studding sails, which are useful in light breezes, were rotten and almost unserviceable:—it was held that she was unseaworthy, though she went down in a hurricane, in which such sails would have been useless (Wedderburn *v.* Bell, 1 Camp. 1).

(3.) *Deficiency or Defects in the Tackling.*—In order to render a ship seaworthy, she must, when she sails, be provided with ground tackling sufficient to encounter the ordinary perils of the voyage. Thus, where a ship sailed with the cable of the small bower anchor so worn and decayed, as to be unfit for service; and with the best bower anchor too light and too short in the shank for a ship of the tonnage,—it was held, that she was unseaworthy (Wilkie *v.* Geddes, 3 Dow, 57). And, where one of the rules of a mutual insurance society, required the *chain cable* of all ships admitted for insurance, to be *tested*:—it has been held, that not testing the chain-cable before sailing, was in the nature of a want of seaworthiness (Harrison *v.* Douglas, 3 Ad. and Ell. 396).

II. From Incompetency or Insufficiency of her Crew.—It is also an implied condition in the seaworthiness of a ship, that, at sailing, she must have a master of competent skill, and a crew sufficient to navigate her on the voyage. The competency of the master, and the sufficiency of the crew, must depend on the nature of the voyage, on which they are employed.

(1.) *The Master.*—The examinations of masters, and the possession of certificates of competency or service for the masters of foreign-going and home-trade passenger ships, have already been considered, (*ante*, p. 161); but, in addition to these certificates, it is required, that the master be sufficiently acquainted with the ordinary course of the navigation on the voyage, by which he reaches his port of destination. For instance, where a ship was insured to a port or ports in Spain, within the Straits of Gibraltar, *including Tarragona, but not higher up the Mediterranean*;—but the master, through entire ignorance of the coast, mistook Barcelona (then in possession of the French) for Tarragona (which is lower in the Mediterranean, and was then in possession of the allies), and on entering the port of Barcelona, the ship was captured:—it was held, that the implied warranty to provide a master of sufficient skill, was not complied with, by sending out a master who could not distinguish the port of Tarragona from the other ports on the coast (Tait *v.* Levi, 14 East, 481).

(2.) *The Crew.*—It is also a condition in the implied warrandice of seaworthiness, that the ship is provided with a sufficient crew of competent skill, adequate to discharge the usual duties, and to meet the usual exigencies to which the ship may be exposed, in the usual course of her voyage. But, if the crew is originally sufficient when the ship sails on the voyage insured, this implied warranty is complied with, provided this crew is engaged *for the whole voyage*. Thus, where a ship and goods were insured on the homeward voyage, "at and from Cuba to Liverpool," without any leave being given to touch and stay at, in the policy;—the proper complement of the ship for the voyage, was *ten* men, but some of the outward crew having been lost by death and desertion at Cuba, and the master, finding it impossible to engage at Cuba, ten men *for Liverpool*, sailed *from* Cuba with only *eight* men engaged for Liverpool, and two for Montego Bay, Jamaica, at which place he touched, landed the two men, and procured others to supply their place for the voyage to Liverpool, and then proceeded there:—it was held, that the ship was not seaworthy when she sailed from Cuba, for a voyage to Liverpool, as she ought to have had *then* on board, a *full complement* of men *engaged for the voyage* (Forshaw *v.* Chabert, 3 B. & B. 158).

(3.) *The Pilot.*—Referring to what has been already said (p. 164 *et seq.*) as to the master or mate being possessed of pilotage certificates, and, in absence of these, the general rule may be stated to be—that no ship is seaworthy, unless she has a pilot on board at such places, as, by usage, or by the positive law of an act of parliament, a pilot is required to be taken on board. One point is plain, that, in *going out* of an intermediate port, or of the out-port, homewards,

where a pilot is required by law or usage, it is unseaworthiness if the master has not a pilot on board, as, in such cases, it is always in his power to procure one. The difficulty is, whether, when the ship is seaworthy, when she sails, and is provided with a competent master and crew, and the master is of competent skill;—the implied warranty of seaworthiness is broken, by the master's entering into or coming out of an intermediate port, or *entering into* the port of destination, where pilots' establishments are kept, without a pilot on board, provided the proper and usual means have previously been taken to procure one, but without avail. As, where a ship, insured "from Liverpool to Sierra Leone and back to her ports of discharge in the United Kingdom,"—arrived off Sierra Leone, where there is a pilot's establishment, and where it is usual for ships going in or out of the river, to take a pilot; and the master made the signals for a pilot to come off, but none did so; and, after waiting some hours, he took his ship in without one, and in doing so she struck the ground and was lost by the perils of the sea:—it was found, that the master acted with a wise discretion, and as a prudent man ought under the circumstances (Phillips *v.* Headlam, 2 B. & Ad. 383).

III. From being Too Heavily or Improperly Loaded.—The general rule is, that a ship must take in no greater cargo than she can conveniently stow and carry; and that, if she is overloaded, and cannot in consequence prosecute her voyage in safety, she is not seaworthy. Whether the cargo be loaded by the crew, or by persons hired for the purpose; or whether it be taken on board from the quay, or from boats or lighters,—it is the duty of the master to see that the cargo is properly stowed and trimmed according to the sailing capabilities of the ship, and to take especial care that she is not overloaded. For, if the ship is originally so overloaded, that it soon becomes apparent she cannot continue her voyage in safety without being lightened, she has then sailed in an unseaworthy state, in consequence of her being overloaded; and the underwriters on the ship or goods will be discharged, unless, by a subsequent memorandum on the policies, they consent to her going into some convenient port to unload, discharge part of the cargo, and reload (Weir *v.* Aberdien, 2 B. & Ald. 32).

IV. From not being Properly Stored and Provisioned.—It is also a condition in the implied warranty of seaworthiness, that the ship shall be sufficiently supplied with stores and provisions requisite for the voyage; and with medicines and medical stores, in terms of the scale issued by the Board of Trade; and also with lime or lemon juice, and sugar and vinegar; and also with a proper medical practitioner, on voyages on which these are required by § 224 and 238 of the Merchant Shipping Act. These provisions and water must not

only be of good quality, and sufficient in quantity, but fully adequate to the exigencies of the voyage; and, in reference to a proper supply of medicines and necessaries suitable for the voyage, it was incidentally remarked by high authority, that the insured was as much bound to shew, that he had provided a proper supply of medicines and necessaries for the voyage, as he was to establish the tightness of the ship (Per Lord Eldon, in Woolf *v* Claggett, 4 Esp. 258).

By § 224 of the Merchant Shipping Act, the owner of every ship navigating between the United Kingdom and any part out of the same, must provide and cause to be kept constantly on board his ship, a supply of medicines and medical stores suitable to accidents and diseases arising on sea voyages, according to the scale, from time to time, issued and published by the Board of Trade; and, except ships bound to European ports, or to ports in the Mediterranean, and also except such ships or classes of ships bound to ports on the east coast of America north of the 35° of N.L., and to any islands or places in the Atlantic, north of the same limit, as the Board of Trade may, from time to time exempt,—the master or owner of every foreign-going ship must provide and keep on board, a sufficient quantity of lime or lemon juice, or of such articles as the Board sanctions as substitutes for lime or lemon juice, and also of sugar and vinegar; and, whenever the crew have consumed salt provisions for ten days, and so long afterwards as the consumption continues, the lime or lemon juice and sugar must be served out *daily*, at the rate of half an ounce each per day, and the vinegar *weekly*, at the rate of half a pint weekly, to each member of the crew. And by § 230, every foreign-going ship, having 100 persons or upwards on board, must carry on board as part of her complement, some person duly authorised by law to practise as physician, surgeon, or apothecary.

Ballast and Dunnage.—It is well known, that the ballast of a ship is a quantity of iron, stones, gravel, or sand, (although the last is objectionable, as being apt to choke the pumps, unless these are properly protected), placed in the ship's hold, in order to sink her deeper in the water, and to render her capable of carrying sail, without the danger of being overset; but it is the *proper ballasting* of a ship which demands particular attention. The *quantity* of ballast requisite, depends upon the sharpness or flatness of the ship's bottom or floor; the proportion being less or more, even for ships of equal burden, according as the floor is sharp or flat. In general, a ship must be so ballasted, as that, when laden, the surface of the water nearly rises on the extreme breadth midships; but the *art* of ballasting consists in so disposing of the ballast, that the centre of gravity may correspond with the trim and shape of the vessel, so as

to be neither too high nor too low—neither too far forward, by the head, nor too far aft, by the stern. The ballast must, therefore, be so duly disposed as to maintain a proper equilibrium in the water, and that the ship is neither too *stiff* nor too *crank*. *Stiffness* in ballasting, is produced by disposing too great a quantity of heavy ballast, as iron, &c., in the bottom, which will throw the centre of gravity very near the keel, and this being the centre about which the vibrations are made, the lower it is placed, the more violent will be the rolling; and, though she may carry much sail, her velocity will not be proportionally increased, while her masts will be endangered by the sudden jerks and excessive rolling. *Crankness,* on the other hand, is produced by having too little ballast, when the lading is so disposed as to raise the centre of gravity too high, which inclines her to lean over a good deal, and unfits her to carry much sail, unless at the risk of being overset. Consequently, when the masts decline from the perpendicular, they strain on the shrouds, and this strain increases, the greater the inclination is (Falconer's "Marine Dictionary").

By § 145 of the Customs Consolidation Act, 1853, any ship can depart in ballast from the United Kingdom for parts beyond the seas, having no goods on board, except stores from the warehouse, borne on the victualling bill, and no goods reported inwards for exportation in the same ship; and then, the collector or comptroller clears the ship in ballast, by notifying this clearance and the date of it, on the victualling bill, and delivers the same to the master, as the clearance thereof. Ships having only passengers, with their baggage, on board, and ships laden only with chalk or slate, are deemed to be in ballast. Dunnage, again, is known to be pieces of timber commonly called *dunnage deals*, placed on the bottom, and against the sides of the hold, to prevent the cargo from being injured by the leakage water. This must vary in different trades, and according to the nature and quality or kind of the cargo carried; one kind requiring more, and another kind less extent of dunnage; but the general rule is well established, that the ship must be well and properly dunnaged for the kind of cargo she is to take in; and that, if through the want, or a deficiency of, or the improper manner of placing the requisite dunnage, the cargo suffers damage, this damage is a good set-off against the freight.

Taking-in and Stowing the Cargo.—The cargo may be taken in either from the quay or from boats or lighters, and this may be done either by the crew or by persons hired for the purpose, who may be hired either by the shipper or by the master. These different modes of putting the cargo on board only affect the question, when the risk of the goods commences on the shipmaster. If the

goods are to be loaded from a quay or wharf, and the goods are deposited on the quay or wharf alongside of the vessel, to the charge of the master, or of the mate who superintends the loading, then the responsibility commences from the time of their being so deposited; or, if the goods are to be brought from the shore by boats sent from the ship, or by lighters hired by the master or owner, he is, consequently, liable for any damage these goods may sustain in the conveyance from the shore to the ship. But if the shippers themselves send the goods from the shore in boats, or lighters engaged by them, the risk remains with them, until due delivery is made to the master or mate.

In all cases, it is the duty of the master to provide ropes and tackling, proper and sufficient for the actual reception of the goods into the ship; and it is a very old rule, that if the goods are spoiled or lost through the deficiency or defectiveness of the ropes or tackling, the damage falls upon the master or owner.

In particular, it is the special duty of the master to direct and superintend the stowage and arrangement of the different articles of which the cargo consists, even where the stowing is performed by persons employed by the shippers, as the master knows best, or ought to know best, the peculiar sharpness or flatness of his ship, her capabilities of sailing when loaded, and the proper trim of her loading adapted to these capabilities. The general rule is, that the different articles of which the cargo may be composed, must be so stowed, in reference to one another, that the one article cannot be hurt or damaged by the other, or by the rolling of the ship. As, for instance, soft goods, as silks, &c., should not be placed below hard goods, by which they may be injured, nor below liquids in casks, by the leakage of which they may be damaged. For the damage so sustained, the master and owner will be answerable, as they are responsible, generally speaking, for all damages arising from bad stowage. And when the cargo is shipped in bulk, as grain and such like, every precaution should be taken against the cargo shifting at sea, which, in stormy weather, it is very apt to do, and which may be attended with dangerous consequences to the ship. For the purpose of preventing this shifting, strong shifting boards and staunchions should be placed both athwart, and fore and aft, and, where the cargo is loose grain, additional precautions should be used before leaving port, to *settle* the cargo as much as possible, by driving wedges plentifully into the grain.

Care should be taken that there be not any contraband, smuggled, or unlicensed goods, by which the master or owner may be liable to a fine, and the forfeiture of the ship may be incurred; and certain kinds of goods are absolutely prohibited to be shipped. By § 329,

of the Merchant Shipping Act, it is enacted, that no person shall be entitled to carry in any ship, or to require the master or owner of any ship to carry therein, any aquafortis (liquid nitric acid), oil of vitriol, gunpowder, or any other goods which, in the judgment of the master or owner, are of a dangerous nature; and if any person carries or sends by any ship, any goods of a dangerous nature, *without distinctly marking their nature on the outside of the package containing the same, or otherwise giving notice in writing to the master or owner*, at or before the time of carrying or sending the same to be shipped, he incurs, for every such offence, a penalty not exceeding £100. The master, or owner, can refuse to take on board any parcel that he suspects to contain goods of a dangerous nature, and he can require them to be opened to ascertain the fact.

By the usual terms of a charter-party, the charterer becomes bound to furnish a full and complete cargo, and the master engages to load and stow on board such goods, or as much thereof as she can reasonably, or safely, and conveniently carry; and, under the charter-party, the charterer is entitled to stow as many goods as the vessel can reasonably carry in her hold, and other parts usually appropriated to cargo (Micheson *v.* Nicoll, 19 L. T., 229), sufficient room being always allowed for the proper working of the ship, for the ship's stores and provisions, and for the accommodation of the crew. Where the charterer so undertakes to furnish a full and complete cargo, the charterer must load the ship, not merely according to her tonnage, as specified in the certificate of registry, or in the charter-party, but according to what she is capable of carrying with safety (Hunter *v.* Fry; 2 B. and A., 421); but if a larger quantity is shipped, so as to occupy the cabin or cabins, the owner is entitled to charge freight for the excess, at the current freight of the day, at the place of shipment (Micheson, *ut sup.*). Care, however, should be taken that the vessel be not overloaded, as has already been noticed, which will render her unseaworthy; or should she, without the underwriter's consent, go into port to discharge part of her cargo, this will amount to a deviation, vitiating the insurances.

Lights, Fog-Signals, &c.—The enactments of the Merchant Shipping Act, requiring the exhibition of lights, and the use of fog-signals, have been already given; and in the Appendix, Note K, is given the Admiralty notice respecting lights to be carried by sea-going vessels, to prevent collision. These regulations were issued under § 26 of the Act, 14 and 15 Vict., c. 79, which contained enactments similar to the corresponding enactments in the present act, and although the act itself is now repealed, the Admiralty regulations so issued, are still in observance. These regulations apply to all British sea-going steam-vessels, (whether propelled by paddles

or screws), "within all seas, gulfs, channels, bays, creeks, roads, roadsteads, harbours, havens, ports, and rivers, and under all circumstances," and to "all sailing-vessels when under sail, or being towed, approaching, or being approached by, any other vessel," "between sunset and sunrise;" and they demand the most careful attention and strict observance of every shipmaster. It is enacted, that "all masters and owners shall be bound to take notice of the same; and shall, so long as the same continue in force, exhibit such lights, and use such fog-signals, at such times, within such places, in such manner, and under such circumstances, as are enjoined by these regulations; and shall not exhibit any other lights, or use any other fog-signals; and, in case of default, the master, or the owner of the ship, if it appears that he was in fault, shall, for each occasion upon which such regulations are infringed, incur a penalty not exceeding £20" (17 and 18 Vict., c. 114, § 295). And where steam-vessels are navigating under these rules, with respect to the number and colour of the lights to be carried, so laid down by the Admiralty, it is essential that the master of each vessel should have his lights properly trimmed and burning (*The Rob Roy*, 3, Robinson's Adm. Cases, 196); and sailing-vessels are bound to exhibit the lights required by these rules (Morrison *v.* Gen. Steam Navig. Co., 21, L. T. 92). Accordingly, where the green light, (see Diagrams 1st, 2d, and 4th) of the plaintiff's vessel, a steamer, having gone out previous to the collision, the defence was sustained, that the master of the defendant's vessel (also a steamer), upon the supposition that the approaching vessel was a sailing-vessel, had acted in conformity with the general rules of navigation (see 17 and 18 Vict., 104, § 296), by porting his helm, putting it to larboard (*The Rob Roy*, *ut sup.*).

By § 301 of the Merchant Shipping Act, it is enacted that every sea-going steam-ship *carrying passengers*, must have her compasses properly adjusted from time to time; this adjustment, in the case of ships surveyed, being made to the satisfaction of the shipwright surveyor, and according to the rules issued by the Board of Trade; but no regulations have been issued or published for the adjustment of ship's compasses generally. Notwithstanding, it is the duty of every master of a sea-going vessel, before sailing on a voyage, to have his compasses properly adjusted by a competent nautical instrument maker (See *postea*, "COLLISION," Chap. V.).

6. CHARTER-PARTIES AND BILLS OF LADING.—The charter-party may either be in the regular form of a deed, and must then be executed, according to the law of the country where it is entered into, or of a memorandum of charter-party, which is the form most commonly adopted; but in whichever form it be, it must, in this country, be *stamped with a 5s. stamp*. In the ship's home port, it is entered

into between the owners, or some of them, or the ship's husband, and the freighter or his authorised agent; for it does not seem that the *implied* powers of the master authorise him, in the place of the owner's residence, to enter into, *as master*, a charter-party, or memorandum of charter-party, so as to be binding on the owner, unless the same has been subsequently adopted or homologated by him. In a *foreign* port, however, and where the owner has no known accredited agent, duly authorised to act for him in the matter, a charter-party, or memorandum of charter-party, entered into by the master, in his own name *as master*, and in the usual course of the ship's employment, is binding on the owners, unless circumstances of fraud or collusion appear.

In the usual form of the charter-party, the common conditions on the owners are:—That the tonnage of the hold, &c. is let to the freighter for the specified voyage; that the ship shall be seaworthy, and shall be kept in that state during the voyage, to the best of the owners' endeavours; that the ship shall be at the port of loading by the agreed on day, ready to take in her cargo; and that the vessel, being so loaded, shall sail, with all convenient speed, or with the first fair wind and weather, to the port of destination, or as near thereto as she can safely get, and there make right and true delivery of the cargo to the party named, or to the agents or assigns of the shipper, under the exceptions after noticed, and on payment of the agreed on freight.

On the freighter, the common conditions are:—That the freighter shall load a full and complete cargo (as the case may be) at the port of lading; that a certain number of lay or running days shall be allowed for loading the ship, after she is ready to receive the cargo, or on the whole, for both loading and unloading; that, for a certain number of days, over and above the lay or working days, the freighter is entitled to detain the vessel on demurrage, paying therefor the stipulated sum of demurrage for each day the ship is so detained; and that, upon a right and true delivery of the cargo, the freighter shall pay, or cause to be paid or settled for, the agreed on freight at, *and on*, the stipulated time or terms of payment or settlement.

It would be out of place here, to even glance at the very numerous cases which have arisen on the construction of charter-parties, many of which have been decided on technical distinctions, unintelligible to the unprofessional reader.

Bills of lading are the master's formal acknowledgement of his having received the specified goods on board, and his obligation to *deliver* them, in the like good order, and under the usual exceptions, *to the party* named, or to the shipper or his assigns; he or they

paying the agreed on freight, with primage and average accustomed. Where there is a charter-party, *it* is the *agreement* to carry and convey; and the *bill of lading* is the *evidence* of the shipment of the particular goods to be conveyed, in terms of the contract. But, in the general carrying trade, and in some other trades, the bill of lading is, commonly, the only evidence of the contract for the conveyance of the goods specified in it, and of the freight to be paid for them on delivery. It is a common practice for the master, or the person authorised to receive the goods, to grant a receipt for them on delivery, and the master should uniformly have this receipt returned to him, before he delivers the completed bills of lading. If this is not attended to, the master may incur a twofold responsibility, one to the holder of the receipt for value; and another, should he require bills of lading deliverable to his own order, or to the order of a consignee to be named by him, to the holder of these bills of lading (Craven *v.* Ryder, 6 Taunt. 433). But, whether there has been a previous receipt or not, the master ought not to sign and deliver the completed bills of lading to any one, other than the shipper himself, or some person specially authorised by him, otherwise he may also incur a twofold responsibility (Ruck *v.* Hatfield, 5 B. & A. 633). When the master has once signed bills of lading for the goods actually shipped on board, his power of doing so is exhausted; and, should he be fraudulently induced to sign another set, for the same goods, though these latter bills should be in the hands of an onerous holder, they are null (Hubbersty *v.* Ward, 20 L. T. 279).

In general, for foreign-going ships, three bills of lading, of the same tenor and contents, are made out and signed by the master,—one of these being for the shipper to transmit to the consignee, or his correspondent abroad,—another, to be retained by the shipper,—and the third is retained by the master, and accompanies the goods, as his guide in delivering them. In a general ship, each individual shipper receives a bill of lading for the goods put by him on board. Bills of lading must each be stamped with a sixpenny stamp.

As the master cannot know the contents of the casks, bales, or packages containing the goods shipped, he should write under his signature, the words "quantity and quality unknown," or "contents unknown," as the case may be, so as to qualify his obligation of delivery; and when the goods are subject to deterioration or natural corruption, he should also write under his signature, the words: "not liable for deterioration or natural corruption" (Abbot, 339; Haddow *v.* Parry, 3 Taunt. 303).

The master ought not to sign or deliver bills of lading until the goods are actually laden on board, and he has satisfied himself as

to the quantity shipped, and the condition in which they have been so shipped; nor should any thing be inserted in these bills of lading which is not strictly true. As, where the agent of the charterer at Jamaica tendered a cargo of sugar in terms of the charter-party, but insisted on the master signing the bills of lading, with the freight, at the rate of ten shillings *per cwt.*, being a less rate than was fixed by the charter-party, and the master refused to receive the cargo upon these terms:—it was held, that the charterer was answerable on his contract to load the ship, the same as he would have been, had no cargo been tendered (Hyde *v.* Willis, 3 Camp. 202). And where bills of lading were signed by the master, bearing that the freight had been paid in Bengal, where the cargo was shipped, when in fact it had not been so paid:—it was held, that the master, who retained the cargo for the freight, could claim payment of the freight from an onerous indorsee, who had paid value for the bill of lading, on the faith of the statement in it, that the freight had been paid in Bengal (Howard *v.* Tucker, 1 B. & Ad. 712).

But, when the bills of lading are not in the hands of an onerous holder, the bills of lading are not, by themselves, conclusive evidence, as between the shippers and shipowners, either of the precise quantity actually shipped, or of any goods having been really shipped at all. Thus, where 790 bags of pepper had been in fact shipped at Singapore, but, by the fraud of the shipper's agent there, the master was induced to sign bills of lading for 890:—it was held, that, as between the original parties, the bill of lading was merely a receipt for the goods, liable to be opened up by evidence of the real facts (Bates *v.* Todd, 1 M. & R. 106). And, in an action against two shipowners, on bills of lading signed by the master, and bearing goods to have been shipped by one of them on board their ship (when in fact, no goods were so shipped), and made deliverable to the pursuer, &c., to whom the co-owner and pretended shipper had indorsed the bill of lading for value:—it was held, that the other co-owner was entitled to prove, that the goods were not in fact shipped, and that he was not precluded from doing so, by the bill of lading so taken (Berkley *v.* Watling, 7 Ad. & Ell. 29).

Bills of lading are transferable by indorsement; and this indorsement may be either to a particular person named,—in blank,—or to the bearer; but with the form of the indorsation, the master has very little concern, provided he make a right and true delivery of the cargo, to the person who appears to him to have the best legal right to the goods; as to which, see "STOPPAGE IN TRANSITU"—"DELIVERY OF THE CARGO," Chap. VII.

EXCEPTIONS IN CHARTER-PARTIES AND BILLS OF LADING.—These *exceptions* are thus expressed:—"The act of God, the Queen's

enemies; detentions and restraints of kings, princes, rulers, and republics; fire, and all and every other unavoidable dangers and accidents of the seas, rivers, and navigation of whatever nature or kind excepted."

The "*act of God*" includes all accidents arising from physical causes, as distinguished from human agency, as lightning, hurricanes, &c., which are sudden and immediate. It also includes storms and tempests, rocks and sands; and, in general, any other violence arising from natural causes, which cannot be prevented or avoided by human foresight or prudence. But, if the position of a rock, or sand-bank, or drift, is or can be known, and the ship strike upon it notwithstanding, this is not within the exception, and the master or owner is not protected (Abbot, 382).

The act of the "Queen's enemies" embraces captures at sea by the ships of war, or the armed cruizers of an enemy in time of war; and damage sustained from the land-batteries of an enemy, where the ship has not placed herself imprudently within their reach.

"Detentions and restraints of kings," &c., applies to actual and operative restraints laid on by foreign powers, and not to a mere apprehended embargo, however reasonable that apprehension may turn out to have been (Aitkenson *v.* Ritchie, 10 East, 530). An embargo does not put an end to the contract of affreightment nor justify a breach of it, the embargo only operating as a temporary restraint upon performance. The same applies to a blockade of the port of departure.

"Fire" is also another risk from which the master and owner are excepted; and although, in the statutory enactments in respect to the liability of shipowners, as afterwards noticed, the *master* is not mentioned, yet the use of the term "*fire*" in ordinary bills of lading, removes all doubt as to the exemption of the master (as well as the owners) from liability. (See *infra*, "LIABILITY OF SHIPOWNERS.")

The subsequent words of the exceptions in charter-parties and bills of lading, may be comprehended under the general expression, "perils of the sea and navigation." These words apply to all accidents arising from the violence of the winds and waves, from being driven on shore, from collision where blame is attributable to neither party,—and, generally, to accidents attributable to the dangers of the seas and navigation, and not to the fault or negligence of the masters or mariners. But where the cargo is damaged by rats during the voyage, it is no defence to an action by the owner of the goods, that the master kept cats on board (Laveroni *v.* Drury, 16 Jur. 1024).

No owner or master of a ship is answerable to any person whatever, for any loss or damage occasioned by the fault or incapacity of any *qualified pilot acting* in charge of his ship, within any district

where the employment of such pilot is compulsory by law (17 and 18 Vict., c 104, § 388).

REQUISITES TO OBTAINING CLEARANCE.—The obtaining of a clearance or transire *outwards* for a ship from the Customs officers, as prescribed by the Customs Consolidation Act, has been already detailed, p. 173; but, by the Merchant Shipping Act, certain documents are required to be produced to the Customs officer before he can grant a clearance or transire. Some of these documents have been already referred to, and here it will be proper to give a detailed and connected view of the whole.

1. Before proceeding to sea, the master of every foreign-going ship must produce to the collector or comptroller of Customs, the certificate given to him by the shipping-master, that the agreement with his crew has been duly executed as required by the act, and that he has produced the certificates of competency or service, which he himself, and his first, or second, or only mate, as the case may be, are also required to possess; and, in the case of running agreements for foreign ships, the master must produce to the collector or comptroller the certificate given to him by the shipping-master, before the second and every subsequent voyage after the first commencement, on his complying with the provisions in § 152, with respect to such agreements, and producing to the shipping-master the certificate of competency or service of any first, second, or only mate, then first engaged by him. No officer of Customs can clear any ship outwards without this production; and if a foreign-going ship attempts to go to sea without a clearance, any Customs officer can detain her until this certificate is produced (§ 161).

2. In home-trade ships of more than eighty tons' burthen, within twenty-one days after 30th June and 31st December in every year, the master or owner must transmit or deliver to some shipping-master in the United Kingdom, every agreement made within the six calendar months next preceding; and in home-trade passenger-ships, he must produce to the shipping-master the certificates of competency or service, which he, the master, and his first or only mate, as the case may be, are required by the act to possess; and thereupon the shipping-master gives the master or owner a certificate of this delivery and production. No officer of Customs can grant a clearance or transire for any home-trade ship without the production of this certificate; and if any home-trade ship attempts to ply or go to sea without this clearance or transire, any Customs officer can detain her until this certificate is produced (§ 162).

Whenever a medical inspector, appointed under § 226, is of opinion, that in any ship required by the act to carry medicines, medical stores, lime or lemon juice, or other articles,—sugar and vinegar,

—the same, or any of them, are deficient in quantity or quality, or are placed in improper vessels,—he signifies the same in writing to the chief officer of Customs of the port where the ship is lying; and also to the master, owner, or consignee thereof; and, thereupon, the master must, before proceeding to sea, produce to that chief officer, a certificate under the hand of the same or some other medical inspector, to the effect that this deficiency has been supplied or remedied, or that these improper vessels have been replaced by proper ones, as the case may be. Without the production of this certificate, the chief officer of Customs cannot grant a clearance for that ship; and, if she attempts to go to sea without a clearance, he can detain her until this certificate is produced; and if she proceeds to sea without production of this certificate, the owner, master, or consignee incurs a penalty not exceeding £20 (§ 226).

No officer of Customs can grant a clearance or transire for any ship required by § 292 to be provided with life-boats, or with life-buoys, unless she is duly so provided; and if any such ship attempts to proceed to sea without this clearance or transire, any Customs officer can detain her until she is so provided (§ 294).

No passenger-steamer can proceed to sea, or upon any voyage or excursion with any passengers on board, unless the owner has transmitted to the Board of Trade the declarations required by § 309 of the act, nor unless the owner or master has received from the board a certificate as provided for by § 312,—this certificate being a certificate applicable to the voyage or excursion on which she is about to proceed. No officer of customs can grant a clearance or transire for any passenger-steamer, unless upon production of this certificate, being a certificate then in force and applicable as aforesaid; and if any passenger-steamer attempts to ply or go to sea without this production, any Customs officer can detain her until this certificate is produced. If a passenger-steamer plies or goes to sea with any passengers on board, without having one of the duplicates of this certificate put up in some conspicuous part of the ship, as directed by § 317, the owner incurs, for such offence, a penalty not exceeding £100, and the master also incurs a further penalty not exceeding £20 (§ 318).

A receipt for light-dues is given by the person appointed to collect the same, to every person paying these dues; and no officer of Customs at any port where light dues are payable in respect of any ship, can grant a clearance or transire for any such ship, unless the receipt for the light-dues is produced to him (§ 400).

Pilots.—The appointment and licensing of pilots, both by the Trinity House and by the local authorities, now termed "Pilotage Authorities," are regulated by the Merchant Shipping Act.

1. *Pilot Licences (General).*—On the appointment of every qualified pilot, he receives a licence, containing his name and usual place of abode, together with a description of his person, and a specification of the limits within which he is qualified to act. It is the duty of the principal officer of Customs of the place at or nearest to which any qualified pilot resides, upon his request, to register his licence; and no qualified pilot is entitled to act as such until his licence is so registered. Any qualified pilot, acting beyond the limits for which he is qualified by his licence, is considered as an unqualified pilot (§ 349).

Upon receiving his licence, every qualified pilot is furnished with a copy of that part of the Merchant Shipping Act which relates to pilotage, together with a copy of the rates, bye-laws, and regulations established within the district for which he is licensed; and, when required to do so, he must produce these copies to the master of any ship, or other person employing him, under a penalty, in case of default, not exceeding £5 (§ 350). And, while acting in that capacity, every qualified pilot must be provided with his licence, and must produce the same to every person by whom he is employed, or to whom he tenders his services as pilot; and, if he refuses to do so, at the request of such person, he incurs, for each offence, a penalty not exceeding £10, and is subject to suspension or dismissal by the pilotage authority by whom he is licensed (§ 351).

When required by the pilotage authority who appointed him, every qualified pilot must produce or deliver up his licence; and, on the death of any qualified pilot, the person into whose hands his licence happens to fall, must transmit the same, without delay, to the pilotage authority who appointed the deceased pilot. Any pilot or person failing to comply with the provisions of this section, incurs a penalty not exceeding £10 (§ 352).

2. *Trinity House Pilots and Sub-Commissioners.*—The Trinity House, Deptford Strond, continues, after due examination by themselves or their sub-commissioners, to appoint and license, under their common seal, pilots for the purpose of conducting ships within the limits following, or any portion of these limits:—

(1.) "The London District," comprising the waters of the Thames and Medway, as high as London Bridge and Rochester Bridge respectively, and also the seas and channels leading thereto or therefrom, as far as Orfordness to the north and Dungeness to the south; so that no pilot is now licensed to conduct ships both above and below Gravesend:

(2.) "The English Channel District," comprising the seas between Dungeness and the Isle of Wight:

(3.) "Trinity House Out-port Districts," comprising any pilotage

district for the appointment of pilots, within which no particular provision is made by any act of Parliament or charter (§ 370).

Subject to any alteration to be made by the Trinity House, the names of all pilots licensed by the Trinity House are published in the following manner:—1. The Trinity House fix up, at their house in London, a notice specifying the name and usual place of abode of every pilot so licensed, and the limits within which he is licensed to act. 2. The Trinity House transmit a copy of this notice to the commissioners of Customs in London, and to the principal officers of Customs resident at all ports within the limits for which that pilot is licensed; and this notice is posted up by the commissioners at the Custom-house in London, and by these officers at the Custom-houses of the ports at which they are respectively resident (§ 371).

Subject to any alteration to be made by the Trinity House, every Trinity House pilot must execute, on his appointment, a bond for £100, conditioned for the due observance, on his part, of the regulations and bye-laws of the Trinity House; this bond being free from stamp-duty and from any other charge, except the actual expense for preparing the same (§ 372). And no qualified pilot who has executed this bond, is liable for neglect, or want of skill, beyond its penalty and the amount of pilotage payable to him in respect of the voyage on which he is engaged (§ 373).

Subject to any alteration to be made by the Trinity House, no licence granted by them continues in force beyond the 31st day of January next ensuing its date; but, upon the application of the pilot holding such licence, the same can be renewed on such 31st January in every year, or any subsequent day, by indorsement under the hand of the secretary of the Trinity House, or such other person as may be appointed by them for that purpose (§ 374). The Trinity House has power to revoke, or suspend the licence of any pilot appointed by them, in such manner and at such time as they think fit (§ 375).

3. *Pilot Boats* (*General*).—All boats and ships regularly employed in the pilotage service of any district, must be approved and licensed by the pilotage authority of that district, who, at their discretion, can appoint and remove the masters of these boats and ships (§ 345).

Every pilot boat or ship must be distinguished by the following characteristics:—

(1.) A black colour painted or tarred outside, with the exception of the names and numbers as after mentioned, or such other distinguishing colour or colours as the pilotage authority of the district, with the consent of the Board of Trade, directs:

(2.) On her stern, the name of the owner thereof, and of the port to which she belongs, painted in white letters, at least one inch

broad, and three inches long, and on each bow the number of such boat or ship:

(3.) When afloat, a flag at the mast-head or on a sprit or gaff, or in some other equally conspicuous situation; this flag being of large dimensions compared with the size of the boat or ship carrying the same, and being of two colours, the upper horizontal half white, and the lower horizontal half red.

It is the duty of the master of the pilot boat or ship to attend to the following particulars:—1st, That the boat or ship possess all the above characteristics; 2d, That the flag is kept clean and distinct, so as to be easily discerned at a proper distance; and, lastly, That the names and numbers before mentioned are not at any time concealed. If default is made in any of the above particulars, the master incurs a penalty not exceeding £20 for each default (§ 346).

Whenever any qualified pilot is carried off in a boat or ship not in the pilotage service, he must exhibit a flag of the above description, in order to shew that that boat or ship has a qualified pilot on board; and if he fails to do so, without reasonable cause, he incurs a penalty not exceeding £50 (§ 347). And if any boat or ship, not having a licensed pilot on board, displays a flag of the description above mentioned, there is incurred, for every such offence, a penalty not exceeding £50, recoverable from the owner or from the master of that boat or ship (§ 348).

4. *Compulsory Pilotage* (*General*).—Subject to any alteration made by any pilotage authority, in pursuance of the power given by § 333 of the act in that behalf,—the employment of pilots continues to be compulsory, in all districts, in which the same was compulsory immediately before the time when the Merchant Shipping Act came into operation (1st May 1855); and all exemptions from compulsory pilotage then existing within these districts, also continue in force. Every master of any unexempted ship navigating within any such district, who, after a qualified pilot has offered to take charge of his ship, or has made a signal for that purpose, either himself pilots his ship without possessing a pilotage certificate enabling him to do so, or employs or continues to employ an unqualified person to pilot her,—and every master of any exempted ship navigating within any of the foresaid districts, who, after a qualified pilot has offered to take charge of his ship, or has made a signal for that purpose, employs or continues to employ an unqualified pilot to pilot her, he incurs, for every such offence, a penalty of double the amount of pilotage demandable for the conduct of that ship (§ 353).

When any ship carrying passengers between any place situate in the United Kingdom, or the islands of Guernsey, Jersey, Sark,

Alderney, and Man, and any other place so situate, is navigating upon any waters situate within the limits of any district for which pilots are licensed under the provisions of the Merchant Shipping Act or any other act, or upon any part thereof so situate,—unless the master or his mate has a pilotage certificate enabling that master or mate to pilot said ship within that district, granted under the provisions of the Merchant Shipping Act, before mentioned (p. 164), or a certificate as has been before (p. 166) and is now again to be mentioned, being a certificate applicable to that ship,—the master of that ship must employ a qualified pilot to pilot his ship; and, if he fails to do so, he incurs, for every offence, a penalty not exceeding £100 (§ 354).

Any master or mate of a ship, which, by the foregoing section, is made subject to compulsory pilotage, can apply to the Board of Trade, and, on satisfactory proof of his having continuously piloted any ship within the limits of any pilotage district, or of any part or parts thereof, for two years prior to the commencement of the Merchant Shipping Act,—or by satisfactory proof by examination of his competency, or otherwise, as the board may deem expedient, the board can cause to be granted to him, or to be indorsed upon any certificate of competency or service obtained by him as before mentioned (p. 162), a certificate to the effect, that he is authorised to pilot any ship or ships *belonging to the same owner*, and of a draught of water not greater than such draught as may be specified in the certificate, within the limits foresaid. This certificate remains in force for such time as the Board of Trade directs, and enables the master or mate therein named to conduct the ship or ships therein specified, within the limits therein described, to the same extent as if the foregoing § 354 had not been passed, but not further or otherwise. Upon applying for this certificate, or any renewal thereof, the master or mate must pay to the Board of Trade, or as it directs, such fees, not exceeding the fees payable on examination for a master's certificate of competency, as the board directs, the fees being applied in the same manner in which the fees payable for that examination are made applicable (§ 355).

5. *Compulsory Pilotage* (*Trinity House*).—Subject to any alterations made by the Trinity House, and to the exemptions aftermentioned, the pilotage districts of the Trinity House within which the employment of pilots is compulsory, are—the London District, and the Trinity Out-port Districts, as before defined (p. 260). The master of every ship navigating within any part of such district or districts, who, after a qualified pilot has offered to take charge of his ship, or has made a signal for that purpose, either himself pilots his ship, without possessing a certificate enabling him to do so, or

employs or continues to employ an unqualified person to pilot her, in addition to the penalty before specified (§ 353, 354), he incurs an additional penalty of £5, for every ton's burthen of his ship, if the Trinity House certify in writing, under their common seal, that the prosecutor is at liberty to proceed for the recovery of this additional penalty (§ 376).

Subject to any alteration made by the Trinity House, a sufficient number of qualified pilots must always be ready to take charge of ships coming from the westward, past Dungeness. By bye-laws made by the Trinity House, such regulations are made with respect to pilots under their control, as are necessary in order to provide for an unintermitted supply of qualified pilots for such ships, and to insure their constant attendance upon and due performance of their duty, both by night and day, whether by cruising between the South Foreland and Dungeness, or by going off from shore, upon signals made for the purpose, or by any other means, and whether in rotation or otherwise, as the Trinity House think fit (§ 377).

Subject to any alteration made by the Trinity House, every master of a ship coming from the westward, and bound to any place in the river Thames and Medway (unless she has a pilot on board, or is exempted from compulsory pilotage), must, on the arrival of his ship off Dungeness, and thenceforth until she has passed the south buoy of the Brake, or a line drawn from Sandown Castle to that buoy, or until a qualified pilot has come on board, display and keep flying the usual signal for a pilot. If any qualified pilot is within hail, or is approaching and within half a mile, and has the proper distinguishing flag flying in his boat, the master must, by heaving to in proper time, or shortening sail, or by any practical means consistent with the safety of his ship, facilitate the pilot getting on board, and must give the charge of piloting his ship to that pilot; or, if there are two or more of these pilots offering at the same time, to such one of them as may, according to the regulations for the time being in force, be entitled or required to take that charge. If the master fails to display and keep flying the usual signal for a pilot, in manner before required, or to facilitate a qualified pilot as aforesaid getting on board as before required, or to give the charge of piloting his ship to that pilot, as before mentioned, he incurs a penalty not exceeding double the sum which might have been demanded for the pilotage of the ship, this penalty being paid to the Trinity House, and carried to the account of the Trinity House Pilot Fund (§ 378).

The following ships, when not carrying passengers, are exempted from compulsory pilotage in the London District, and in the Trinity *Out*-port Districts:—

(1.) Ships employed in the coasting trade of the United Kingdom:

(2.) Ships of not more than sixty tons burthen:

(3.) Ships trading to Boulogne, or to any place in Europe north of Boulogne:

(4.) Ships from Guernsey, Jersey, Alderney, Sark, or Man, wholly laden with stone, the produce of these islands:

(5.) Ships navigating within the limits of the ports to which they belong:

(6.) Ships passing through the limits of any pilotage district, on their voyages between two places both situate out of these limits, and not being bound to any place within these limits, nor anchoring therein (§ 379).

6. *Rights, Privileges, and Remuneration of Pilots (General).*—If any boat or ship having a qualified pilot on board, leads any ship which has not a qualified pilot on board, when this last-mentioned ship cannot, from particular circumstances, be boarded,—the pilot so leading this last-mentioned ship is entitled to full pilotage for the distance run, as if he had actually been on board and had charge of that ship (§ 356).

Except under circumstances of unavoidable necessity, no pilot must, without his consent, be taken to sea or beyond the limits for which he is licensed, in any ship whatever. Any pilot so taken under circumstances of unavoidable necessity, or without his consent, is entitled, over and above his pilotage, to the sum of 10s. 6d. a-day, to be computed, from and inclusive of the day on which a ship passes the limits to which he was engaged to pilot her, up to and inclusive of the day of his being returned in the same ship, to the place where he was taken on board, or up to and inclusive of such day as will allow him, if discharged from the ship, sufficient time to return thereto. In this case, he is entitled to his reasonable travelling expenses (§ 357).

Any qualified pilot demanding or receiving, and also any master offering to pay any pilot, any sum in respect of pilotage services, whether greater or less, than the rate for the time being demandable by law, incur, for each offence, a penalty not exceeding £10 (§ 358).

If, on being requested by any qualified pilot having the charge of his ship, to declare her draught of water, the master refuses to do so, or himself makes, or is privy to any other person making, a false declaration to that pilot, as to her draught,—he incurs, for every such offence, a penalty of double the amount of pilotage which would have been payable to the pilot making that request. And if any master or other person interested in a ship, makes, or is privy to any other person making, any fraudulent alteration in the marks on the

stem or sternpost of a ship denoting her draught of water, the offender incurs a penalty not exceeding £500 (§ 359).

A qualified pilot can supersede an unqualified pilot, but it is lawful for the master to pay to that unqualified pilot a proportionate sum for his services, and to deduct the same from the charge of the qualified pilot: and, in case of dispute, the pilotage authority by whom the qualified pilot is licensed, determines the proportionate sums to which each party is entitled (§ 360).

An unqualified person assuming or continuing in charge of a ship, after a qualified pilot has offered to take charge of her, or using a licence which he is not entitled to use, for the purpose of making him appear to be a qualified pilot, incurs, for each offence, a penalty not exceeding £50 (§ 351). But, under the following circumstances, an unqualified pilot may, without subjecting himself or his employer to any penalty, take charge, within any pilotage district, of a ship as pilot:—

When no qualified pilot has offered to take charge of the ship, or made a signal for that purpose; or, where a ship is in distress, or under circumstances making it necessary for the master to avail himself of the best assistance which can be found at the time:

For the purpose of changing the moorings of any ship in port, or of taking her into or out of any dock, in cases where such act can be done by an unqualified pilot, without infringing the regulations of the port, or any orders which the harbour-master is legally empowered to give (§ 362).

The following persons are liable to pay pilotage dues for any ship for which the services of a qualified pilot are obtained, viz., the owner or master, or such consignees or agent thereof as have paid, or made themselves liable to pay, any other charge on account of that ship in the port *of her arrival or discharge, as to pilotage inwards*, and, in the port *from which she clears out, as to pilotage outwards.* In default of payment, these pilotage dues can be recovered, in the same manner as penalties of the like amount may be recovered under the act (see Chap. VII. "LEGAL PROCEDURE"); but this recovery of pilotage dues cannot take place, until a previous demand thereof has been made in *writing*, and the dues so demanded have remained unpaid for seven days after the time of that demand being made (§ 363).

Every consignee and agent (not being the owner or master) so made liable for the payment of pilotage dues in respect of any ship, can retain, out of any monies in his hands received on account of the ship or belonging to the owner thereof, the amount of all dues so paid by him, together with all reasonable expenses he may have *incurred*, by reason of that payment or liability (§ 364).

7. *Rates of Pilotage (Trinity House).*—Subject to any alteration made by the Trinity House, there continue to be paid to all Trinity House pilots, in respect of pilotage services, such dues as were, immediately before the Merchant Shipping Act came into operation, payable to them in respect of these services (§ 380). See the table U in the schedule annexed to the act.

Subject to any alteration made by the Trinity House, and notwithstanding anything before mentioned, there is paid in respect of all foreign ships, trading to and from the port of London, and not exempted from pilotage, the following pilotage dues:—*as to ships inwards,* the full amount of dues for the distance piloted; and *as to ships outwards,* the full amount of dues for the distance required by law. Payment of these pilotage dues must be made to the collector of Customs in the port of London, by some one or more of the following persons:—the master or other person having charge of the ship, or the consignee or agents thereof, who have paid, or made themselves liable to pay, any other charge for that ship in the port of London. This pilotage can be recovered in the same manner as other pilotage dues are recoverable (§ 381).

Subject to any alteration made by the Trinity House, the collector, on receiving pilotage dues, in respect of foreign ships, gives to the person paying the same a receipt in writing, and no officer of Customs in the port of London can grant a clearance or transire for any such foreign ship, without the production of this receipt; and, if she attempt to go to sea without a clearance or transire, any such officer can detain her until this receipt is produced (§ 382.)

Whenever any difference arises between the master and any qualified pilot of any ship trading to or from the port of London, as to her draught of water, the Trinity House, upon the application of either party, made, in the case of a *ship inward bound,* within twelve hours after her arrival, or at some time before she begins to discharge her cargo; and in the case of *an outward bound ship,* before she quits her moorings, appoints some proper officer, who measures the ship, and settles the difference accordingly; and there must be paid to the officer, who so measures the ship, by the party against whom he decides, £1, 1s., if the ship be below, and 10s. 6d., if she be above the entrance of the London Docks at Wapping (§ 384).

By (5) of § 333, every pilotage authority, by bye-laws, made with consent of her Majesty in council, can fix the rates and prices or other remuneration to be demanded and received, for the time being, by pilots licensed by such authority, or to alter the mode of remunerating these pilots, in such manner as this authority may, with consent foresaid, think fit; so that no higher rates or prices

are demanded or received from the masters or owners of ships, in the case of the Trinity House, than the rates and prices specified in the table U annexed to the Merchant Shipping Act; and, in the case of all other pilotage authorities, than the rates and prices which might have been lawfully fixed or demanded by them respectively under any act of Parliament, charter, or custom, in force immediately before the commencement of the Merchant Shipping Act.

8. *Offences of Pilots (General).*—If any qualified pilot commits any of the offences after mentioned, he, for each such offence, in addition to any liability for damages at the suit of the person aggrieved, incurs a penalty, not exceeding £100, and is liable to suspension or dismissal by the pilotage authority by which he is licensed, viz:—

(1.) Keeps himself, or is interested in keeping by any agent, servant, or other person, any public-house or place of public entertainment, or sells, or is interested in selling, any wine, spirituous liquors, tobacco, or tea:

(2.) Commits any fraud, or other offence against the revenues of customs or excise, or the laws relating thereto:

(3.) Is in any way, directly or indirectly, concerned in any corrupt practices relative to ships, their tackle, furniture, cargoes, crews, or passengers, or to persons in distress at sea, or by shipwreck, or to their monies, goods, or chattels (moveables):

(4.) Lends his licence:

(5.) Acts as pilot when suspended:

(6.) Acts as pilot when in a state of intoxication:

(7.) Employs or causes to be employed on board any ship of which he has the charge, any boat, anchor, or cable, or other store, matter, or thing, beyond what is necessary for the service of that ship, with the intent to enhance the expenses of pilotage, for his own gain or the gain of any other person:

(8.) Refuses or wilfully delays, when not prevented by illness or other reasonable cause, to take charge of any ship within the limits of his licence, upon the signal for a pilot being made by that ship, or upon being required to do so by the master, owner, agent, or consignee thereof, or by any officer of the pilotage authorities by whom that pilot is licensed, or by any principal officer of customs:

(9.) Unnecessarily cuts or slips, or causes to be cut or slipped, any cable belonging to any ship:

(10.) Refuses, on the request of the master, to conduct the ship, of which he has the charge, into any port or place into which he is qualified to conduct the same, except on reasonable grounds of danger to the ship:

(11.) Quits the ship of which he has the charge, without the

consent of the master, before the service for which he was hired has been performed.

And every person who procures, abets, or connives at the commission of any such offence, likewise incurs, in addition to any liability for damages, as aforesaid, a penalty not exceeding £100; and, if a qualified pilot, is liable to suspension or dismission by the pilotage authority by which he is licensed (§ 365).

If, when in charge of any ship, any pilot, by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, does any act tending to the immediate loss, destruction, or serious damage of that ship, or tending immediately to endanger the life or limb of any person on board; or if any pilot, by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, refuses or omits to do any lawful act, proper and requisite to be done by him, for preserving the ship from loss, destruction, or serious damage; or for preserving any person belonging to, or on board of that ship, from danger to life or limb,—the pilot, so offending, is deemed, for each offence, guilty of a misdemeanor, and, if a qualified pilot, is also liable to suspension and dismissal by the authority by which he is licensed (§ 366).

If, by wilful misrepresentation of circumstances upon which the safety of a ship may depend, any person obtains, or endeavours to obtain, the charge of that ship, this person, and every other person procuring, abetting, or conniving at the commission of such offence, incur, in addition to any liability for damages, at the suit of the party aggrieved, a penalty not exceeding £100; and, if the offender is a qualified pilot, he is also liable to suspension or dismissal by the pilotage authorities by which he is licensed (§ 367).

Liability of Shipowners.—By § 4 of the act 17 and 18 Vict., c. 120, the previously existing acts, 7 Geo. II., c. 15; 26 Geo. III., c. 86; and 53 Geo. III., c. 159, limiting the responsibility of shipowners, were repealed; and the liability of shipowners is now regulated by the ninth part of the Merchant Shipping Act, which applies to the whole of her Majesty's dominions.

1. *Limitation of Liability.*—No owner of any sea-going ship, or share therein, is liable to make good any loss or damage that may happen, *without his actual fault or privity* (joint knowledge) of or to any of the following things:—

(1.) Of or to any goods, merchandise, or other things whatsoever taken in or put on board his ship, by reason of any *fire* happening on board that ship:

(The *master* is not here mentioned, but the insertion of the word "fire" in the bill of lading, removes his responsibility *(Abbot, 389)*. Under § 4 of the 26 Geo. III., c. 86, which

was framed in words analogous to the foregoing, it was held, that lighters, used for loading and unloading goods from ships, were not included; and, therefore, that the owners of these, when loss or damage happened by fire, either through accident or negligence, to goods on board these, were not protected from liability under that statute (Hunter *v.* M'Gowan, 1 Bligh, 513; Morewood *v.* Pollock, 21 L. T. 87).

(2.) Of or to any gold, silver, diamonds, watches, jewels, or precious stones, taken in or put on board his ship, by reason of any *robbery, embezzlement, making away with, or secreting thereof*, unless the owner or shipper thereof has, *at the time of shipping the same*, inserted in his bills of lading, or otherwise declared in writing to the owner or master of that ship, the true nature and value of these articles:—

To any extent whatever (§ 503).

No owner of a sea-going ship, or share therein, is answerable to an extent beyond *the value of his ship*, as at the time of the loss (Wilson, *infra*), and the *freight due, or to grow due*, in respect of that ship, during the voyage, which, at the time of the happening of any of the events after-mentioned, is in prosecution, or contracted for, viz.:—

(1.) Where any loss of life or personal injury is caused to any person being carried in his ship:

(2.) Where any damage or loss is caused to any goods, merchandise, or other things whatsoever, on board that ship:

(3.) Where any loss of life or personal injury is, by reason of the improper navigation of a sea-going ship, as aforesaid, caused to any person carried in any other ship or boat:

(4.) Where, by reason of this improper navigation of a sea-going ship, any loss or damage is caused to any other ship or boat, or to any goods, merchandise, or other thing whatsoever, on board any other ship or boat.

But, in no case where any such liability is incurred in respect of loss of life or personal injury to any passenger, can the value of such sea-going ship, and the freight thereof, be taken to be less than £15 per registered ton (§ 504).

(The words—"The freight due, or to grow due, in respect of the ship during the voyage," are nearly the same as the terms used in the first section of the act 53 Geo. III., c. 159; and, under that section, it was held that the words "freight due, or to grow due," comprehended all the freight for the voyage, and that it made no difference whether that freight was paid in advance or not (Wilson *v.* Dickson, 2 B. & A. 2). And the value of the freight is taken to be the amount which

the ship would have actually earned *as freight*, had she arrived at her port of destination, after deducting the freight on goods thrown overboard, burnt, or wrongously sold in the course of the voyage (Canaan *v.* Maeburn, 1 Bing. 465).

For the purposes of this ninth part of the Merchant Shipping Act, the freight is deemed to include the value of the carriage of any goods or merchandise belonging to the owners of the ship, passage-money, and also the hire due or to grow due under or by virtue of any contract, except only such hire, in the case of *a ship hired for time*, as may not begin to be earned until the expiration of six months after the loss or damage (§ 505).

In respect of every such loss of life, personal injury, loss of or damage to goods as aforesaid, arising on different occasions, the owner of a sea-going ship, or share therein, is liable to the same extent as if no other loss, injury, or damage had arisen (§ 506).

2. *Mode of Procedure.*—Whenever any liability, as aforesaid, has been or is alleged to have been incurred, by loss of life or personal injury, after giving not less than three days' notice, by post or otherwise, to the party to be made defendant or defender, the Board of Trade can, by warrant, sealed with the seal of the board, or signed by one of its secretaries or assistant-secretaries, require the sheriff having jurisdiction over any place in the United Kingdom, to summon a jury at the time and place specified in the warrant, for the purpose of determining the following questions:—The number, names, and descriptions of all persons killed or injured by reason of any wrongful act, neglect, or default. Upon the receipt of this warrant, the sheriff summons a jury of twenty-four indifferent persons, duly qualified to act as common jurymen in the superior courts, to meet at the time and place specified in the warrant (§ 507).

If either party to the inquiry desire the question to be tried by a special jury, it can be so tried, provided that notice of this desire, if coming from the other party, is given to the Board of Trade before it has issued its warrant to the sheriff; and, for that purpose, the board requires the sheriff, by its warrant, to nominate a special jury for the trial. Thereupon, and as soon as conveniently may be after the receipt of the warrant by the sheriff, he summons both the parties to appear before him, by themselves, or their attorneys or agents, at a convenient time and place appointed by him for nominating a special jury; and, at the place and time so appointed, the sheriff proceeds to nominate and strike a special jury, in the same manner in which special juries are required, by the laws in force for the time being, to be nominated or struck by the proper officers of the superior courts; and the sheriff appoints a day, and on the day so appointed, he proceeds to reduce the special jury to the number of

twenty, in the manner used and accustomed by the proper officers of the superior courts (§ 508).

The following provisions are applicable to the conduct of proceedings by the Board of Trade:—

(1.) The sheriff presides at the inquiry, and,—in England and Ireland, the board is deemed to be plaintiff,—and, in Scotland the pursuer,—with power to appoint an agent to act in its behalf, and has all the rights and privileges of a plaintiff in actions at law, and the owner or owners by whom such liability is alleged to have been incurred, are deemed,—in England and Ireland, to be the defendant, —and, in Scotland, the defender:

(2.) Not less than ten days' notice of the time and place of the inquiry, is served by the board on the defendant:

(3.) Service on the master of the ship, is deemed good service on the owner; and, in respect of the proceedings on such an inquiry, the master is deemed the agent and representative of the owner, with power to appear for him on the inquiry, and to do all matters and things he might have done himself:

(4.) If the defendant does not appear at the time of the inquiry, that inquiry is proceeded with, as if he had appeared, upon due proof of service of notice having been made on him, in pursuance of the act:

(5.) In England and Ireland, the empanelling of the jury and the summoning and attendance of witnesses, is conducted and enforced in the manner provided by the Lands Clauses Consolidation Act (8 and 9 Vict., c. 18), in cases of disputed compensation as to land, and, in Scotland, in the manner provided by the Lands Clauses Consolidation (Scotland) Act (8 and 9 Vict., c. 19), in like cases, or as near thereto as circumstances will permit. All the provisions in these acts, having reference to cases where any question of disputed compensation requires to be determined by the verdict of a jury, are, with the requisite alterations, considered as incorporated with the Merchant Shipping Act, and to have reference to cases where the question of the liability of an owner, in respect of any such accident as aforesaid, requires to be determined by the verdict of a jury:

(6.) In England and Ireland, if the Board of Trade so requires, or if the defendant so requires, and the board assents thereto, the sheriff must appoint as assessor a barrister-at-law, of competent knowledge and standing:

(7.) In England and Ireland, the costs incurred by all parties, in and incident to any such inquiry, are taxed by the master of one of her Majesty's superior courts of law, as between attorney and client; *and, in* Scotland, by the auditor of the Court of Session, as between *agent* and client; and if, in any inquiry, the verdict is in favour of

the plaintiff, these must be paid by the defendant; but, if the verdict is in favour of the defendant, these are paid by the Board of Trade, out of the Mercantile Marine Fund:

(8.) Upon application made to a superior court as aforesaid, the payment of all damages and costs in any such inquiry, are enforced by rule or order of that court, or a judge thereof, or otherwise, as the court and judge thinks fit:

(9.) The Board of Trade can make any compromise it thinks fit, as to the damage payable in respect of personal injury or of the death of any person; and any damages received in pursuance of such compromise, so far as the same extend, are applied in the same manner, and are subject to the same rules, as if these were damages on the inquiry by the board. (See *infra*, § 509.)

The following rules are observed, as to the damages recovered in any such inquiry as aforesaid, and the application thereof:—

(1.) The damages payable in each case of death or injury must be assessed at £30:

(2.) The damages found due on an inquiry as aforesaid, are the first charge on the aggregate amount for which the owner is liable, and must be paid out of that amount, in priority to all other claims:

(3.) All damages as aforesaid must be paid to her Majesty's Paymaster-General, and must be distributed and dealt with by him in such manner as the Board of Trade directs. In directing this distribution, the board has power, in the first place, to deduct and retain any costs incidental thereto; and, in the next place, as regards the sums paid *in respect of injuries*, to direct payment to each person injured, of such compensation,—not exceeding in any case the statutory amount,—as the board thinks fit; and, as regards the sums paid *in respect of death*, to direct payment thereof for the benefit of the husband, wife, parent, or child of the deceased, or any of them, in such shares, upon such evidence, and in such manner, as the board thinks fit:

(4.) The board refunds to the owner any surplus remaining under its control, and the sum so refunded forms part of the residue as after mentioned (§ 511):

(5.) Neither the board, nor any person acting under it, is liable to any action, suit, account, claim, or demand whatsoever, for or in respect of any act or matter done, or omitted to be done, in the distribution of these damages as aforesaid:

(6.) If the amount paid to her Majesty's Paymaster-General, as already mentioned, is insufficient to meet the demands upon it, the several claims must abate (suffer diminution) proportionally *(§ 510)*.

After the completion of an inquiry as aforesaid, if any person estimates the damages payable in respect of such injury—or, if the executor or administrator of any deceased person, estimates the damages payable in respect of his death, at a greater sum than the statutory amount—or, in case of a compromise having been made by the Board of Trade, than the amount accepted by the board, by way of compensation for the injury or death as aforesaid, upon repaying or obtaining the repayment by the board to the owner, of the amount paid by him to the board, in respect of such injury or death, —the person so estimating the damages, is at liberty to bring an action for the recovery of damages, in the same manner as if no power for instituting an inquiry had been given, to the board as before mentioned, subject to the following proviso:—that any damages recoverable by that person, are payable only out of the *residue*, if any, of the aggregate amount for which the owner is liable, after deducting all sums paid to her Majesty's Paymaster-General in manner foresaid. If the damages recovered in the action do not exceed double the statutory amount, that person must pay to the defendant in the action, all the costs thereof,—these costs being taxed, in England and Ireland, as between attorney and client; and, in Scotland, as between agent and client (§ 511).

In cases where loss of life or personal injury has occurred by any accident in respect of which the owner of the ship is, or is alleged to be, liable in damages, no person is entitled to bring any action, or institute any suit or other legal proceeding in the United Kingdom, until the completion of the inquiry (if any) instituted by the Board of Trade,—or until the board has refused to institute the same. And, for the purpose of entitling any person to bring an action or institute a suit or other legal proceeding, the board is deemed to have refused to institute such inquiry, whenever notice has been served on it by any person, of his desire to bring such an action or institute such suit or other legal proceeding, and no inquiry is instituted by the board, in respect of the subject-matter of such intended action, &c., for the space of one month after the service of this notice (§ 512).

Whenever the board, having refused as now mentioned, to institute any inquiry, afterwards determines to institute an inquiry, the damages and costs (if any) recovered in this inquiry, are payable rateably with, and not in priority to, any costs and damages recovered in any other action, &c. (§ 513).

In cases where any liability has been, or is alleged to have been incurred by any owner, in respect of loss of life, personal injury, or loss of or damage to ships, boats, or goods, and several claims are made or apprehended in respect of this liability, then, subject to the

right before given to the Board of Trade (§ 507) of recovering damages in the United Kingdom, in respect of loss of life or personal injury,—it is lawful, in England or Ireland, for the High Court of Chancery, in Scotland, for the Court of Session, and, in any British possession, for any competent court, to entertain proceedings at the suit of any owner, for the purpose of determining the amount of this liability, subject as aforesaid; and for distributing this amount rateably amongst the several claimants, with power to that court, to stop all actions and suits pending in any other court, in relation to the same subject matter. Any proceeding entertained by the Court of Chancery, Court of Session, or any other competent court, can be conducted in such manner, and subject to such regulations as to making interested persons parties to the same, and as to the exclusion of any claimants who do not come in within a certain time, and as to requiring security from the owner, and as to payment of costs, as the court thinks just (§ 514).

All sums of money paid for or on account of any loss or damage, in respect of which the liability of the owners of the ship is limited, as has been before mentioned, and all costs incurred in relation thereto, can be brought into account among part-owners of the same ship, in the same manner as money disbursed for the use thereof (§ 515).

3. *Saving Clause.*—Nothing in this part of the Merchant Shipping Act as before detailed can be construed:—to lessen or take away any liability to which any *master or seaman* being also *owner or part owner of the ship to which he belongs*, in his capacity of master or seaman:—or to extend to any British ship, *not being a British registered ship*, within the meaning of the Merchant Shipping Act (§ 516).

The liability of a master, *not being an owner or part owner of his ship*, is in no ways affected by the foregoing provisions of the Merchant Shipping Act.

See "LIABILITY OF THE MASTER." *Infra*, Chap. VII.

CHAPTER V.

OF THE VOYAGE AND ITS INCIDENTS.

Proceeding on the voyage—Ports or Places of Call—Deviation.—1. *From stress of weather*; 2. *For want of necessary repairs*; 3. *From illness of master or mariners*; 4. *Mutiny of crew*; 5. *Succouring ships in distress*—Change of voyage—Collision.

PROCEEDING ON THE VOYAGE.—The loading of the vessel having been fully completed, all the necessary papers and documents on board, the clearance or transire from the customs duly obtained, and the master furnished with copies of the charter-party, or memorandum of charter-party, and of the policies of insurance on both ship and goods,—the master must, without delay, proceed on the intended voyage, but not so as to sail in stormy weather, or in an adverse wind. According to the modern practice, the master is the sole judge of the propriety of sailing; and, if a day is fixed in the charter-party or memorandum, for the ship's sailing,—either *on or before*, or *not before*, or *not after*,—the sailing on or before, or not before, or not after, that particular day, admits of a *reasonable* excuse. But, when similar terms are used in a policy of insurance, whether on ship or goods, these terms must be literally complied with, and the ship must have actually broken ground, and, being completely seaworthy in all respects, must have really proceeded on her voyage, *on or before*, and must not proceed *after*, the day named,—or she must not sail *before* the day so fixed, according to the terms used. Here, a *substantial* compliance with these terms will not do; they must be complied with to the very letter; and, where the warranty or condition is, that the ship shall sail on or before a certain day, should she not sail, from whatever cause, on or before that day, in a fit condition to proceed to sea, and so, over the sea, to her port of destination, the insurances are void; and, in like manner, if the terms of the warranty are, that the ship shall not sail *before*, or not sail *after* a certain day—should she sail *before* that day in the one case, or *after* that day in the other, the policies, either on ship or goods, in these terms, will not attach. And, to comply with this warranty, the sailing must be a sailing with all things fully complete for the voyage; for, if the vessel is not then seaworthy in all respects *for the voyage*, as detailed in the preceding chapter, she sails in an unseaworthy state, in breach of the implied warranty of seaworthiness, and, consequently, neither the ship nor cargo is protected by the policies of insurance.

Thus, in a policy on sugar "at and from Tobago to London," the ship was warranted to sail *on or before* 10th August; on the 9th she took out her clearance for London, and on the 10th had finally completed her loading and got her passengers on board; she was then moored in Tobago Bay, with a bower and stream anchor, and there was no impediment to her sailing, had the wind permitted; in fact, on that day the stream anchor was raised, some of the sails were set, and she moved forward about thirty fathoms, by heaving in about that length of the cable of the bower anchor; but the bower anchor was not raised, as a heavy swell was seen setting into the bay, and the master was fearful, if he departed on that day, the vessel would be lost in getting out; she therefore lay where she was till next morning, the 11th, and then got under weigh, and finally left the port, having had no communication with the shore after the morning of the 10th; but it was held, that, in order to comply with the warranty, the ship *must be actually on her voyage* on the day specified (Nelson *v.* Salvador, M. and M. 359). So also, where the policy was "at and from Portneuf (on the St Lawrence, about thirty miles above Quebec) to London," and a warranty to sail "*on or before* the 28th October;" on the 26th, the ship, having completed her loading at Portneuf, dropped down the river to Quebec, to obtain her clearance, with a crew not complete for her voyage across the Atlantic: on the evening of the 28th she arrived at Quebec, but the crew was not completed, nor the clearances obtained at the Quebec custom-house till the 29th, and she did not actually leave the port of Quebec till the 30th:—it was held that this was not a compliance with the warranty (Ridsdale *v.* Newanham, 3. M. and S. 456). And where, in a *time* policy, the ship was "warranted *not to sail* for British North America, *after* the 15th day of August;" the ship was then lying in the custom-house dock, Dublin, and on the 10th was chartered for a back voyage to Dublin; on the morning of the 15th, being then *in all respects ready for sea*, she was cleared at the custom-house, and, in the course of the same day, was hauled out of dock into the river Liffey, for the purpose of proceeding on her voyage to Quebec; on that day, however, the wind was blowing right up the river, dead against the ship; but, on the same day, she was warped down the river till the tide ebbed, and she took the ground; on the next day, the wind being still right against her, she was warped down to a point, beyond which she could make no further progress in that way, and where, at the ebb, she again took the ground; next day, the 17th, the wind shifted, and the ship immediately set sail, and put to sea on her voyage:—it was held, that the ship was in the prosecution of her voyage on the 15th August, having on that day made a movement

for the purpose of proceeding to sea (though in the river), and over the sea to North America (Cochrane *v.* Fisher, 5 Tyr. 496).

Where no particular course for the voyage is pointed out in the charter-party or in the policies of insurance, and where the voyage is merely stated to be,—from a port named, as the port of loading, or sailing, to another port named, as the port of destination or discharge,—the master is not at liberty to take any course he may think proper, but he is bound to take the shortest and safest, and, at the same time, the usual and customary course, to the port of destination or discharge.

But, if a particular route or course is pointed out for the voyage, in the charter-party or in the policies, that route or course must be adhered to and followed, and any deviation from that route or course, not justified or rendered necessary by any of the causes, or for any of the purposes, to be afterwards mentioned, will render the shipowner liable for any subsequent loss of the cargo, or damage received by it, from whatever cause, and will also vitiate the insurances both on ship and goods. The course of the voyage pursued by the ship must be the course described, or, in other words, in this case the master must be guided in this course by the directions in the charter-party or policies of insurance; and hence the necessity of his being furnished with copies of the charter-party and of these policies.

It may have been agreed in the charter-party or stipulated in the policies of insurance, that the ship is to call, or to have leave to call, at certain ports or places in the course of her voyage; and, hence, the next consideration is—the

Ports or Places of Call.—Here two general rules must be attended to:—If these ports or places of call are enumerated in the charter-party or policies, then these ports or places of call *must be taken in the order in which they are so enumerated*, whether that be in their geographical order or not: But, if the liberty is general,—with leave to call at all or any ports or places,—then these ports or places must be taken in the geographical order in which they occur in the course of that voyage. And there is another rule applicable to both:—if any one port or place of call is not visited in the due course of the voyage, but the subsequent ports or places of call are duly visited in their order, as named,—or, if not named, in their geographical order,—then, the omitted port or place cannot be visited *at a subsequent stage* of the voyage, without this being deemed a deviation. An example or two will make these rules plain:—

Thus, in one case, on the first point, a ship was insured from "Carron to Hull, *with liberty to call at Leith*,"—the usual practice was for vessels in that trade to call at different places going down

the Forth, and taking in and delivering goods, as at Borrowstonness, Leith, and Morrison's Haven; and, in this case, the broker was instructed to insure the goods, with liberty *to call as usual*, but the policy was effected in the above terms, "*with liberty to call at Leith;*" the ship sailed on her voyage, and, passing by Leith, without calling there, put into Morrison's Haven; and having got safe in and out, again resumed the direct course of her voyage from Carron to Hull, when she was overtaken by a storm, and wrecked on the coast of Northumberland, with a total loss of the cargo:—it was held in the House of Lords, that the ship's putting into a port when she had no liberty to do so, but, on the contrary, express permission was given her to put into a *named port*, thereby discharged the underwriters (Elliott *v.* Wilson, 7 Brown's P.C. 459). And, where a ship was insured, "at and from Fisherrow to Gottenburgh, and back to Leith and *Cockenzie*," and after having performed her outward voyage, she sailed from Gottenburgh on her homeward voyage, having goods on board both for Leith and Cockenzie; in the geographical order, Cockenzie lies nearer Gottenburgh than Leith, and lies about a mile and a half out of the direct course between the two ports; it is a much less convenient harbour than Leith, and there did not appear to be any settled course of trade regulating the order of sailing to the two places, on a voyage such as that insured; without going first to Leith, the ship put into Cockenzie, and, in coming out, was stranded and lost:—it was held that, as the *termini* of the intended voyage were in terms described in the policy, and as there was no regular and settled course known to all traders, different from that so described, the underwriter was discharged (Beatson *v.* Haworth, 6 T.R. 531).

So, where a ship was insured "at and from London to Trinidad," with liberty to call at all or any of the West India islands and settlements; it was held, that the liberty of calling must be confined to places taken in the direct and customary course between the *termini* of the voyage insured, and, therefore, could not be held to protect the ship, after having once sailed southward as far as Demerara, on then sailing northward to Martinique and St Thomas's, unless satisfactory evidence was given that such was the customary course in these voyages as that insured (Gardner *v.* Senhouse, 3 Taunt. 16). And where a ship was insured from Liverpool to Palermo, Messina, and Naples, the true construction of the policy was held to be, that the insured might drop any of the places named, but that, if he went to more than one, he must take them in the order named in the policy (Marsden *v.* Reid, 3 East, 572).

It is implied in this liberty to call at ports or places in the course of the voyage, that the so calling must be for some purpose or ob-

ject in connexion with the general scope or ultimate termination of that voyage, and not for any purpose or object altogether unconnected. And, therefore, where a ship was insured on a voyage "at and from Para to New York," during her stay there, and at and from thence to Para, with leave to call at all or any of the Windward or Leeward islands on her passage to New York, with leave to discharge, &c., at any ports or places she might call at or proceed to, particularly at all or any of the Windward and Leeward islands, without being deemed any deviation; after sailing from Para, on her passage to New York, the ship put into St Thomas's and St Bartholomew's, two of the Leeward islands, not for any purpose connected with the voyage insured, but in order to obtain information for the shipowner, as to the state of the market in these islands:—it was held that, though these islands were within the scope of the adventure, yet putting into them for a purpose wholly unconnected with the voyage insured, and which had reference to a new adventure, to be subsequently undertaken in another ship, vitiated the policy (Hammond *v.* Reid, 4 B and A. 72).

Deviation.—A *deviation* from the ordinary and usual course of the voyage, must be distinguished from a *change* of the voyage—the former being made, voluntarily or necessarily, in the course of the original voyage, while the commencement and termination of that voyage may remain the same; but the latter being the substitution of a new and different voyage or route for the one originally specified or agreed on, and the determination so to change the voyage, must, in the general case, have been resolved upon, previous to the sailing of the ship.

A deviation voluntarily made without any justifying cause, not only discharges the underwriters from the time or point at which the deviation takes place, but it renders the master and owner liable for all the subsequent loss or damage the goods may sustain; and, if there has been a time fixed by the charter-party, for the ship's being ready at an appointed place, to receive her cargo, but, in consequence of a voluntary deviation on the outward voyage, she is not at the port of loading by the agreed on time, the freighter has it in his option to put an end to the contract; and, in any view, the owner is liable to him in damages.

In reference to this liability of the owner to the freighter, the following cases may serve as an illustration:—A ship was chartered for a voyage from London to the Cape of Good Hope, and thence to Bombay and back; having arrived at the Cape and delivered goods there, (which could have been done in two days,) he remained there ten days, taking in cattle for the Mauritius,

on his own account, went round by the Mauritius on his way to Bombay, and arrived there six weeks later than he would have done, had he proceeded direct; the freighter's agents refused to load a cargo; and, in an action of damages, by the owners against the freighter for not loading a cargo, it was held, that a deviation so long and unreasonable, put an end to the contract of affreightment (Freeman *v.* Taylor, 8 Bing. 318). And in another case, a ship was chartered on 20th October, to go in ballast from Portsmouth to St Michael's, and bring back a cargo of fruit direct to London, thirty-five running days being allowed for loading and unloading, to commence on 1st December then next; and if the ship did not arrive at St Michael's by 31st January thereafter, the charterer was to be at liberty to throw up the charter-party; the usual length of the voyage is a fortnight or three weeks, and the loading and unloading occupies about a week, so that, had the ship sailed direct for St Michael's shortly after the date of the charter-party, her cargo might have been expected in London early in January,—ships ordinarily sailing about the end of October, and arriving in London about the end of December, so as to be early in the market; but, instead of proceeding direct to St Michael's, the ship made a voyage to Oporto, returned to Portsmouth, and then sailed for St Michael's, which she reached before 31st January, and arrived, loaded with oranges, in London, on 1st February, by which time there was a glut in the market, and the price of oranges had fallen 10s. 6d. a box;—in an action of damages by the charterer against the shipowner, the latter was found liable (M'Andrew *v.* Adams, 1 Bing. N.C. 29).

These were cases under charter-parties; but, in every case of voluntary deviation, the general rule, as between the owner of the goods and the shipowner, is "that no wrongdoer can be allowed to qualify or apportion his own wrong; that if a loss actually happens while his wrongful act is in operation and force, and which is attributable to his wrongful act, he cannot set up as an answer, the bare possibility of a like loss, if his wrongful act had never been done" (Per Tindal, C. J., in Davis *v.* Garnett, 6 Bing. 716).

The subject of deviation is often an important question under policies of insurance. Some of the cases already mentioned, under an express liberty to call at ports or places, are instances also of deviation; but then the question falls to be looked at, in cases *where there is no such liberty;* and here, the general rule is, that *there must be a precise, clear and established usage,* to justify a ship in departing from the direct and usual course between the port of departure and the port of destination (1 Arn., 354).

As, for instance, it is well known that all ships passing through the Sound have to stop at Elsinore, and pay the Sound dues,—this stoppage being considered as forming a part of the usual course of the voyage of ships in the Baltic trade; and, therefore, this is not held a deviation, though there be no liberty so to stop in the policy. (Cormick *v.* Gladstones, 11 East, 347). And where ships engaged in the Newfoundland trade, are insured in the usual terms, "at and from Newfoundland," for the homeward voyage,—it is no defence to the underwriter, that a ship, after her arrival at Newfoundland, has made intermediate voyages, according to the common usage of that trade, from one American port to another, before beginning to load her cargo for the homeward voyage, though the underwriters had not been informed of this usage (Vallance *v.* Dewar, 1 Camp. 503).

Where a ship was insured at and from *her port of loading* in North America to Liverpool—the ship took in part of her loading at a place in one creek of a bay, and, to take in the rest, afterwards went to another place, eight miles off, in another creek of the same bay; this was held to be a deviation, on the grounds, that the terms of the policy clearly shewed the underwriter did not intend to run the risk of the ship's loading at two places so distant, and that there was no evidence of these two places being considered by the mercantile world, as forming parts of the same port (Brown *v.* Tayleur, 4 Ad. and Ell. 241).

Not only will a deviation from the prescribed and usual course of the voyage discharge the underwriters, but a departure from the *usual mode of carrying it on*, by which the risk is varied from the risk meant to be assured by the underwriters, will have the same effect, as is well illustrated by the following case:—A ship was insured "at and from London to Jamaica," a voyage which, after arriving at a certain point, may be pursued by any one of three tracks; one immediately to the south of St Domingo; another further south; and a third to the north of that island: of these three tracks, those to the southward were the most usual, especially in time of peace, and were the safest navigation, while the one to the northward was the shortest, but more difficult, though sometimes preferred in time of war, by those who were acquainted with it; but the *usual course* is to leave it to the master on arriving at the dividing point of the three tracks, to exercise his own judgment at the time, in selecting the proper course, according to circumstances, to be taken. In the present instance, however, the master sailed, *with directions* to call at Cape Nicolai Mole, in St Domingo, and land some stores there, and afterwards proceed to Jamaica, and he, accordingly, did not exercise his own judgment in selecting the

northward track, which, in the course from London to Nicolai Mole and Jamaica, is the same up to a certain subdividing point. After having passed the dividing point of the three different tracks before mentioned, and while in the northward track to Jamaica, but before reaching the subdividing point, leading from this continuous course, into the port of Cape Nicolai Mole, the ship was captured. It was held, that the underwriter was discharged from his liability, on the ground, that the master, by his instructions, had been limited to take only one of the three tracks; whereas, by the common course of the voyage, as it must have been understood by the underwriter, he ought to have been left to his own discretion to decide which of the three he *then* thought best (Middlemas *v.* Blakes, 7 T.R. 164).

This case shews the necessity, where a ship is to sail on a voyage, which may be performed in two or more different tracks, but where the master is instructed to take *one particular tract* for a certain purpose, of communicating these instructions fairly and honestly to the underwriter, and also of entering in the policy the voyage as so intended.

But an *intention* to deviate not carried into effect, and even instructions given for that purpose to the master previous to departure, will not discharge the underwriter, who remains liable for all losses incurred previous to this intention being actually carried into effect, and while the ship is in the direct course of the voyage insured.

As where a ship was insured "from Heligoland to Memel," but the ship sailed with orders to go into Gottenburgh, to ascertain whether it would be safer to proceed to Memel or to *Anholt;* the ship was captured, while on the direct course both to Anholt and to Memel:—it was held, that as the ship was captured before reaching the dividing point, the underwriters were not discharged, as the purpose of going to Anholt was only an intention to deviate (Heselton *v.* Allutt, 1 M. and S. 46). And where goods were insured on a voyage from Liverpool to London, warranted "free of average under 3 *per cent;*" before sailing from Liverpool, the master had taken in goods for Southampton, with the intention of putting in there, which he afterwards did; but, before the ship diverged from the course of her voyage to London, in order to go into Southampton, the goods had sustained more than 3 *per cent.* damage from bad weather, though, on the after part of the voyage, the weather was tolerably fair, and there was no heavy sea:—it was held, that the underwriters were liable on the policy (Hare *v.* Travis, 7 B. and C. 14).

As the underwriter is discharged by an actual deviation in the

course of the voyage, on the ground that *it varies the risk*, so, on the same ground, the underwriter will likewise be discharged, by an unreasonable or unexcused delay in commencing or prosecuting the voyage. The question, whether the ship stay an unreasonable time, is a question of fact; and the question, whether the purpose which caused the delay, be within the scope of the adventure or not, is a question of law.

Thus, where a yacht was insured "at and from Bristol to London," and, without any reasonable excuse, did not sail from Bristol *till five months* after the policy was effected:—it was held, that this delay unaccounted for, amounted to a deviation which discharged the underwriter (Palmer *v.* Marshall, 8 Bing. 317). And in another case, an insurance was effected on goods, at and from Liverpool to any port or ports, place or places of trading on the coast of Africa, and African islands, *during her stay and trade on the said coasts and islands*, and from thence to her port or ports of discharge in the United Kingdom, with leave to call, &c., and with an agreement, that she might be employed as a tender to any ship or vessel in the same employ; the ship arrived at Benin in Africa, and *stayed there thirteen months*, and during that time she was employed in carrying goods from a vessel in the same employ, to Camaarons, and putting them on board another vessel, also in the same employ; but on her return with a homeward cargo, she was lost:—it was held, that it was a proper question for the jury, whether her stay at Benin was reasonable or not, and the jury having found that the delay was unreasonable, it was held that this was warranted by the evidence (Hamilton *v.* Shedden, 3 M. and W. 49).

And as the question, whether the purpose which caused the delay is within the scope of the adventure or not, in one case, a ship was insured on a trading voyage, to all or any ports in the North or South Pacific Ocean, and the master delayed 109 days at one of the ports in those seas, in the hope of getting permission to land her outward cargo, and, during that time, he was negotiating with the government for that purpose:—it was held that this delay was not unreasonable (Bain *v.* Case, 3 C. and P. 496). And where a seeking ship was insured, "at and from London to Bombay, and thence to China, and back to the United Kingdom," and she stayed at Bombay for more than six months after she was ready to take in cargo there, *for the purpose of procuring a remunerating freight*:—it was held that this delay did not amount to a deviation, as it was justified by a purpose strictly connected with the main object of the adventure (Phillips *v.* Irving, 8 Scott's Rep. 8).

It has already been seen, that a *voluntary* or *unexcused* departure or deviation from the course of the voyage, has the effect of dis-

charging the underwriter, from the time of deviation; and the same effect follows, though the deviation may have proceeded from the ignorance, however gross, of the master: as, where a ship was insured "from London to Jamaica," with directions to proceed direct to the latter place; but she was driven out of her course, by strong currents and other circumstances, to a point between the Grand Canary and Teneriffe, from which point the direct course to Jamaica is *south-west;* but, instead of taking this course, the master, through ignorance, bore up for Santa Cruz, which lies thirty miles to the *north-west;*—this was held to be a deviation (Phyn. *v.* Ro. Ex. Ass. Co. 7 T. R. 505). Where, however, the deviation is compelled by a force which *physically* the master could not, or which *morally* he ought not to resist, or where the deviation is excused by a justifying cause, the deviation will not have the effect of discharging the underwriter.

As illustrative of the physical or moral force which necessitates a deviation, take the following decided cases. In one case, a ship was insured from Lisbon to Madeira, from thence to Saffi, on the coast of Africa, and back from Saffi to Lisbon. When arrived off Madeira, all the crew, except two, quitted the ship,—being alarmed at the reports of the attacks made by Moorish cruisers off Saffi,—and refused to return to her, unless the master promised to sail immediately back to London, which he was then necessitated to do, without having abandoned the original voyage:—it was held, that the master's returning to Liverpool, in pursuance of this promise, was no deviation (Driscoll *v.* Bovill, 1 B. and P. 313). And, in another case, goods were insured on board a ship, "at and from Liverpool to Amsterdam," against sea-risk and fire only. In the course of the voyage, the ship, being a neutral, was boarded by a British cruiser, and carried into Falmouth, where she was detained six weeks, and then released and permitted to proceed on her voyage,—in the course of which, from Falmouth, the goods sustained damage from tempestuous weather. The underwriters pled, that this was a deviation, not proceeding from a cause against which they had insured, nor justified by a necessity for which they were answerable; but it was held that this was no deviation, having been caused by force, which was an overruling necessity (Scott *v.* Thompson, 1 B. and P. (N. R.) 181).

But where the master of a merchant-ship, while loading at a port in Iceland, was ordered by the captain of a King's ship to go out to sea, and examine a strange sail in the offing having enemy's colours; and, without any remonstrance on his part, and without any force or compulsion, he unmoored and put to sea:—it was held that, as there was no duress or compulsion, this was a deviation not justified (*Phelps v. Auldjo*, 2 Camp. 350).

The causes which, at the present day, will justify a deviation or departure from the direct and usual course of the voyage, are—1. Stress of weather. 2. Want of necessary repair. 3. Illness of the master or mariners. 4. Mutiny of the crew. 5. Succouring ships in distress.

1. *Deviation from Stress of Weather.*—The general is, that what is occasioned by the act of God, is to be attributed to no man as a fault; and, therefore, if a ship is driven out of her course by a storm or stress of weather, this is no deviation, having been compelled by unavoidable and overruling force. And if the master puts into a port out of his course, or delays sailing, to take refuge from a storm, or to wait for a wind, this is not a deviation, if, in so doing, the master has done what a prudent man, in the exercise of a sound judgment, would have done, under the circumstances, for the benefit of all concerned. When a ship is thus driven out of her course, or into a port of refuge, she need not return to the point from whence she was driven, but can make the best of her way to her port of destination (1 Mar. 200; 1 Arn. 402).

2. *Deviation for Want of Necessary Repairs.*—If a ship sails in a seaworthy state, but becomes so disabled, in the course of her voyage, as to be unable to continue that course without repair, it is no deviation to go into the nearest port out of the course of her voyage, where these repairs can be had, and to stay there till these repairs are completed; provided that the repairs so done, are only such as are absolutely necessary to enable her to continue her voyage, and that there is no longer delay than is requisite for getting these repairs done. The same principle applies, where the ship is found to have too little ballast, and she puts into a port, out of her course, to obtain an additional quantity; or where she has originally sailed overloaded, and shortly after, puts into a port, out of her course, to unload part (1 Mar. 201; 1 Arn. 400).

3. *Deviation from Illness of Master and Mariners.*—When a ship sails on her voyage originally sufficiently manned, and in all respects fully equipped for the voyage, having a full supply of medicines and medical-stores, &c., as prescribed by the Merchant Shipping Act, and also, in the case of a foreign-going ship, a medical practitioner, as required by § 230; but, in consequence of some epidemic or pestilential disease, during the course of the voyage, the officers or crew become so reduced by death, or enfeebled by illness, as to be unable to navigate the ship, it seems to be agreed, that the putting into a port, out of the direct course of the voyage, for the purpose of procuring others to supply the places of those who may have died, or become incapacitated, is not held to be a deviation (Woolff *v.* Claggett, 3 Esp. 256). If, however, the ship has sailed without being

provided with the proper supply of medicines and medical-stores, and with a medical practitioner, as required by law,—the going into a port, out of the course of the voyage, to procure these, will be a deviation; and the same principle applies to the provisions and stores, unless where, by unavoidable delays in the course of the voyage, these, originally sufficient, have become exhausted.

4. *Mutiny of the Crew.*—A case has been already referred to (Driscoll *v.* Bovill, *ut sup.*), where all the crew left the ship, and would not return to her, and proceed on the voyage, unless the master promised immediately to return to the home port; and he having done so, in pursuance of his promise, this was held to be no deviation. And the general rule is, that where the master is compelled, by the mutinous conduct of his crew, to deviate from the course of the voyage, this will not be such a deviation as will discharge the underwriters (1 Mar. 206; 2 Arn. 829).

5. *Succouring Ships in Distress.*—The dictates of humanity, and the true interests of commerce, concur in holding this to be a duty imposed upon every one who has the means of performing it; and, therefore, a deviation made expressly with this object does not discharge the underwriter (1 Mar. 204; 2 Park 627).

It has been already seen, that an *unreasonable and unexcused* delay operates the same as an actual deviation in discharging the underwriters; but this delay admits of a reasonable excuse. As where a ship was insured, on 15th May, while lying at Pillau, for her homeward voyage, from "Pillau to London;" and it became necessary, while lying there, that she should be thoroughly repaired before she sailed on her homeward voyage. These repairs were not completed till the end of June, and she began to take in her cargo on 1st July; but, in consequence of the water being unusually low, she could not get over the bar, and did not sail till November:—it was held that this was not a voluntary delay amounting to a deviation (Smith *v.* Surridge, 4 Esp. 25).

Change of Voyage.—It has been seen that a *deviation* is a departure from the actual course of the voyage, yet with the ultimate intention of proceeding to the original port of destination; but a *change of voyage* takes place where the original destination of the ship is abandoned, and where the ship does not intend to go, nor goes, with her cargo, to the destined port; and, consequently, the underwriter runs no risk; and if this purpose of change is fixed *before* the ship sails, or, if this purpose has been formed *after* the ship sailed, the underwriter is discharged from all liability subsequent to the time of forming this resolution. In such cases, the question is:—What is the intention of parties, as shewn in their *conduct and actings?* If the ship's papers and documents are made

out, and, particularly, if she is cleared at the custom-house, for a place different from that inserted in the policy, then the intention is plain, and the underwriter is discharged from all liability, even though a loss happen before the dividing point of the two voyages (2 Park 656).

Thus, a ship was insured "at and from Maryland to Cadiz," but she was cleared *from Maryland to Falmouth*, and bond was given that the *enumerated* goods should be landed in Britain, and all the other goods in the British dominions; the bills of lading were, "to Falmouth and a market;" and there was no evidence that she was destined to Cadiz at all; the ship was captured in Chesapeake Bay, at a place in the course from Maryland both to Cadiz and Falmouth, before the dividing point:—it was held, that the voyage intended was not the voyage insured, and that therefore the underwriters were discharged (Woodridge *v.* Boydell, Doug. 16). So also, where a ship being expected to arrive in Cadiz, with a cargo of fish from Newfoundland, the owners at Glasgow wrote their agents at Cadiz, after discharging the cargo of fish, to ballast the ship with salt, and, if possible, procure her freighted for the Clyde; when the ship arrived, the French, then investing Cadiz, had got possession of the salt works round the city, and no salt could be procured; this the agents communicated to the owners, and stated that, under the circumstances, and with the advice and sanction of the master, they had resolved on sending the ship to Liverpool for salt, from whence she could proceed to Newfoundland;—on receipt of this letter, the owners insured the ship, "*at and from Cadiz*, to her port or ports of discharge in St George's Channel, including Clyde;" much time having been spent in discharging her cargo of fish at Cadiz, the agents, thinking that the ship, if sent first to Liverpool for salt, would arrive too late at Newfoundland, changed their plans, and resolved, after consulting the master, to load what salt could be procured at Cadiz, and despatch her *thence direct to Newfoundland;* and they accordingly wrote the owners, that, with assent of the master, they proposed thus to alter the destination of the ship; but, about a week after the date of this letter, the ship—still in the bay of Cadiz, and her cargo of fish not entirely discharged, nor any steps taken towards commencing her direct voyage from Cadiz to Newfoundland—was taken by the French, and burnt where she lay:—it was held in the House of Lords, that a fixed determination had been formed to abandon the voyage insured, before the loss took place, and that, therefore, the underwriter was not responsible (Tasker *v.* Cunningham, 1 Bligh's P. C. 87).

A similar decision was given in the following case, where the *insurance* was at and from a certain date. The terms of the insur-

ance were, "at and from the 20th October, from any ports in Newfoundland to Falmouth, or her port or ports of discharge in England;" on the 1st October the ship sailed from her port in Newfoundland *to fish on the banks,* and she continued fishing there till the 7th, on which day she sailed *from the banks* to England; on the 20th October, the day on which the risk under the policy commenced, she was sailing on a course—common both to a voyage *from the banks* to England, and to a voyage *from Newfoundland* to England, and continued in this course up to 30th November, when she was lost:—it was held that, as the voyage insured was from Newfoundland to England direct, and that the voyage *on which the ship sailed* was from Newfoundland *to the banks,* and *then* to England,—the ship had never sailed on the voyage insured, and, therefore, the policy had never attached (Way *v.* Modigliani, 2 T. R. 30).

Collision.—The rules prescribed by the Merchant Shipping Act, for the exhibition of lights and the use of fog-signals, and the rules for meeting and passing, have been already detailed (*ante*, Chap. I., p. 158); but here the subject of collision is introduced, in so far as it affects the rights and liabilities *of owners and masters*, and the liability of underwriters. It may be proper, however, before doing so, to recapitulate the rules now referred to, as to meeting and passing.

By § 296, it is enacted, that whenever a ship, whether a steam or sailing-ship, proceeding in one direction, meets another ship, whether a steam or sailing-ship, proceeding in another direction,—so that if both ships were to continue their respective courses, they would pass so near as to involve any risk of *a collision,—the helms of both ships must be put to port* (put to the larboard or left side of each, looking forward), so as to pass on the port (left) side of each other. This rule must be obeyed by all steam-ships, and by all sailing-ships whether on the port or starboard (right side, looking forward) tack, and whether close-hauled (with her yards braced up as much as possible to windward) or not, unless the circumstances of the case are such as to render a departure from this rule necessary, in order to avoid immediate danger,—due regard being had to the dangers of navigation, and, as regards sailing-ships on the starboard tack close-hauled, to the keeping of such ships under command. And every steam ship, when navigating any narrow channel, must, whenever it is practicable, keep to that side of the fairway or mid-channel which lies on the starboard side of that steam-ship (§ 297).

In so far as a collision may affect the rights and liabilities of the owner and master, Lord Stowell has stated the four possibilities under which the collision may happen. "In the first place, it may hap-

pen without blame being imputable to either party, as where the loss is occasioned by a storm or any other *vis major* (tempest, &c.); in that case, the misfortune must be borne by the party on whom it happens to light,—the other party not being responsible to him in any degree. 2dly, A misfortune of this kind may arise, where both parties are to blame, where there has been a want of due diligence or skill on both sides; in such case, the rule of law is, that the loss must be apportioned between them, as having been occasioned by the fault of both of them. 3dly, It may happen by the fault of the suffering party only; and then the rule is, that the sufferer must bear his own burden. And, lastly, It may have been the fault of the ship which ran the other down; and, in this case, the innocent party would be entitled to an entire compensation from the other" (*The Woodrop*, Sims, 2 Dod. Adm. Rep. 85).

Where the collision arises from a cause falling under the first of the above divisions, in a question between the owners and freighters, the former are exempt from liability, under the exception of "perils of the sea," in the charter-party or bill of lading (Buller *v.* Fisher, 1 Esp. 67). Where both parties are to blame, and where there has been a want of due diligence or skill on both sides, but damage has been sustained only by one, this damage is borne equally by both parties (Hay *v.* Le Neve, 2 Shaw's Ap. C. 395). And where a close-hauled vessel on the larboard tack, and a vessel with the wind free on the starboard tack, meet each other, and neither give way in time, both are held to be equally in fault; so that, where there is a probability of a collision, the ship on the larboard tack and close-hauled, is not justified in persevering to keep her luff (keeping close to the wind), although the other ship is on the starboard tack with the wind free; but, where practicable, she is bound to take the necessary precautions for avoiding the collision, although the other ship is acting wrongfully in not bearing away (*The Commerce*, 3 Rob. Ad. C. 287). Where the collision happens by the fault of the suffering party only, then the loss must rest where it lights; as where a steamer was coming up a river on the south side, about one-third of the whole breadth distant from the shore,—the night being dark, the tide ebbing, and the wind blowing strong from the west;—a schooner was observed coming down the river, just open over the steamer's larboard bow, and, as soon as the schooner was observed, the helm of the steamer was put to starboard, in the belief that the former would keep down the mid-channel, so as to go down with the strength of the tide; but it was held that the steamer was to blame, and that the schooner had conducted herself properly (*The Friends*, 7 Jur. 307). And in the last possibility, where the fault is wholly on one side,—as where the one ship was hard up in

the wind and laden, but the other had the wind free and was light, and the latter not having given way, the accident occurred:—it was held, that she ought to have given way, and was wrong in not doing so (Vernall *v.* Garner, 1 G. & M.) But it is not sufficient to entitle the suffering party to claim *consequential damages*, by reason of the detention of his ship while under repair, to aver that his ship might have earned a certain amount of probable freight; but he must prove that he has thereby sustained a direct and positive loss (*The Clarence*, 3 Rob. Adm. Rep. 283).

By § 388 of the Merchant Shipping Act, it is enacted, that no owner or master of a ship shall be answerable to any person whatever, for any loss or damage occasioned by the *fault or incapacity of any qualified pilot* acting in charge of his ship, within any district where the employment of such pilot is compulsory by law. The 55th sect. of the previous Pilots' Act (6 Geo. IV. c. 125, now repealed) was in terms nearly similar; and, under that section, it was held, that an owner claiming exemption from liability for damages, by reason of having a licensed pilot on board, was bound to prove that the damage was occasioned by the fault of the pilot,—that section only relieving the owners from liability for damages done by their ship, where the damage was occasioned by the fault, negligence, or misconduct of the pilot alone. And, therefore, where a ship, having a licensed pilot on board, whilst anchored in the Downs —the weather being bad—was run into by another vessel, and made to start from her anchorage, and was driven into another vessel:—it was held, in the Court of Admiralty, that she was to blame, and liable in damages; because—1st, the ship, notwithstanding the bad weather, and a large number of vessels lying windbound in the Downs, had neglected to send down her top-gallant and main-royal-yards, and also her short fore and mizen top-gallant-masts; and, 2dly, that she did not set her stay-sail and jib, and so drag her anchor off shore; and this decree of the Admiralty Court was affirmed, on the ground, that the neglect to set the stay-sail and jib, after she was driven from her anchorage, was the fault of the pilot alone; but that the neglect in not sending down the top-gallant-masts, &c. was the joint fault of the pilot and the master, and that, therefore, the owners were not exempted by the 55th sect. of the Pilots' Act (*The Christiana*, 7 Moore's Rep. P. C. 160). And, in another case, a ship, with a duly licensed pilot on board, was condemned in a case of collision,—the fault being equally imputable to the pilot and the crew on board (*The Lochlibo*, 3 Rob. Adm. Rep. 310).

By the Merchant Shipping Act it is enacted, that if it appears, in *any case of collision*, that that collision was occasioned by the non-

observance of any rule *for the exhibition of lights, or the use of fog-signals*, issued in pursuance of § 295,—(*see Admiralty Regulations and Diagrams, Appendix, Note K*)—or of the foregoing rule as to the passing of steam or sailing ships,—or the rule as to a steam-ship keeping that side of a narrow channel which lies on the starboard side,—the owner of the ship by which the rule has been infringed is not entitled to recover any compensation whatever *for any damage sustained by his ship in that collision*, unless it is shewn that the circumstances of the case made a departure from the rule necessary (§ 298).

In reference to that part of the foregoing enactment as to the non-observance of the rule for the exhibition of lights, it has been held, that sailing-vessels are bound to exhibit the light required by the admiralty rules; and that if a sailing-vessel, negligently lying at anchor without a light, be run down by another vessel, through the sheer negligence of the latter in not keeping a proper look-out, the owner of the vessel at anchor may recover, notwithstanding his own neglect (*The Panther*, 1 Eccl. and Adm. Rep. 31). And where the green light of a steam-vessel had gone out previous to a collision, the defence of the owner of the other steam-vessel was sustained, that the master of his vessel, on the supposition that the approaching vessel was a sailing-vessel, had acted in conformity with the general rules of navigation, by porting his helm (*The Rob Roy*, 3 Rob. Adm. Rep. 190).

The Merchant Shipping Act also enacts, that if, in any case, any damage to person or property arises from non-observance of any of the rules in §§ 265, 296, and 297, this damage is deemed to have been occasioned by the wilful default of the *person in charge of the deck of that ship at the time*, unless it is shewn that the circumstances of the case made a departure from the rule necessary (§ 299).

Generally speaking, damage sustained by collision is a loss by "perils of the sea," for which the underwriters are liable, unless that damage is imputable to the fault of the master or mariners of the suffering ship,—in which case the better opinion seems to be, that the underwriters are not liable (Smith *v.* Scott, 4 Taunt. 125).

CHAPTER VI.

WRECKS, CASUALTIES, SALVAGE, AND POWERS OF MASTER.

Stranding—Voluntary Stranding, or Running on Shore—Throwing Goods overboard—Powers of Master: 1. In disposing of wreck—2. Bonds of Bottomry—3. Sale of part of Cargo—4. Hypothecation of Ship, Cargo, and Freight—5. Transhipment—Wreck on Coasts of United Kingdom—Duties of Receivers—Unclaimed Wreck in United Kingdom—Offences in respect of Wreck—Salvage (General)—Salvage by Her Majesty's Ships—Salvage in United Kingdom.

STRANDING.—This term, in its proper acceptation, comes under the usual exception in charter-parties, and bills of lading, of "all and every dangers of the seas, rivers, and navigation, of whatsoever nature or kind;" and in all policies of insurance, it falls under the general words, "of all other perils, losses or misfortunes," against the risk of which the insurance is made. In the memorandum commonly attached to policies on goods warranting the enumerated articles free from average under certain rates, the words are added, "unless general, or the ship be stranded;" and it has been decided, that these words should be read as if they stood, "warranted free from average unless general, or *unless* the ship be stranded;" the meaning of which is, that if the ship is stranded, the underwriters are responsible for any loss, however trifling, the *enumerated* articles may sustain by sea-damage the same as if no warranty to be free of average had been inserted (Burnett *v.* Kensington, 7 T.R. 210).

In policies of insurance upon a ship, the memorandum in which these words are, is not found, because, if a ship is driven on shore, or on a rock, &c., the damage falls under the general term, "perils of the sea;" but in the policies of insurance on goods, the meaning of the words, "or the ship be stranded," is, that by the ship's being stranded, the insured is let in to claim for his whole partial loss. It is admitted, that the term, "stranding," is not very happily chosen; but the meaning of the term has now been pretty accurately defined by judicial determinations. The question, what is, or what is not a stranding? has thus been answered:—"In instances where the event happens in the ordinary course of navigation, as, for instance, from the regular flux and reflux of the tide, without any external force or violence, it is not a stranding; but where it arises from an accident, and out of the ordinary course of navigation, it is. The difficulty consists in the application of the rule" (Per Taunton, J. in Wells *v.* Hapwood, 3 B. and Ad. 34). "The general principle and rule of law is, that where a vessel takes the ground in the ordinary

and usual course of the navigation and management in a tide harbour, or river, upon the ebbing of the tide, or from a natural deficiency of water, so that she may float again upon the flow of the tide, or the increase of the water, such an event shall not be considered a stranding, within the sense of the memorandum; but, where the ground is taken under any extraordinary circumstance of time or place, by reason of some unusual or accidental occurrence, such an event shall be considered a stranding within the meaning of the memorandum. According to the construction that has been long put on the memorandum, the words, 'unless general, or the ship be stranded', are to be considerd *as an exception out of an exception*, as to the amount of an average or partial loss, provided for by the memorandum, and, consequently, to leave the matter at large according to the meaning of the policy; and as every average loss becomes a charge upon the underwriters, where a stranding takes place, whether the loss has been occasioned by that stranding or no, the true and legal meaning of the word, 'stranding,' is a matter of great importance in policies on goods" (Per Lord Tenterden, in Wells *v.* Hopwood, *ut sup.*).

The application of this rule, and of these principles, will appear more distinctly, from a few examples applicable to each branch.

1. "Where the ground is taken under any extraordinary circumstance of time or place, by reason of some unusual or accidental occurrence, *such an event is a stranding within the meaning of the memorandum*," (*ut sup.*); or, as it has been put by another high authority, "where the taking of the ground does not happen solely from those natural causes, which are necessarily incident to the ordinary course of the navigation in which the ship is engaged, either wholly or in part, *that is a stranding*" (Per Tindall, C.J. in Kingsford *v.* Marshall, 8 Bing. 468).

Thus, where the ship insured having arrived opposite the dock in Liverpool, the pilot, in the absence of the master, and contrary to his caution against letting her take the ground, laid her aground on a bank in the Mersey; when she floated, he took her to the pier of the basin, and made her fast there, with the intention that she should take the ground when the tide fell; soon afterwards, she took the ground astern, and the water leaving her, she fell over on the side farthest from the pier, with such violence, that she bilged and broke many of her timbers; when the tide rose again, she righted, but with ten feet water in the hold, by which the cargo was wetted and damaged:—it was held, that this was clearly a stranding,—the ship having been taken out of the usual course, and improperly *moored* in the place where the accident afterwards happened (Carruthers *v.* Sydebotham, 4 M. and S. 77).

In another case, the ship, in the course of the voyage, was forced, by tempestuous weather, to take refuge in a harbour, and, in entering it, struck upon an anchor, and on being brought to her moorings, was found leaky, and in danger of sinking, and, on that account, was hauled with warps higher up the harbour, where she took the ground, and remained fast there, for half an hour:—it was held, that this was a stranding within the meaning of the policy (Barrow *v.* Bell, 4 B. and C. 736).

In another case, a ship was compelled, in the course of her voyage, to go into a tide harbour, where she was moored alongside a quay, where ships of her burden usually were moored, and in as safe a situation as could be found; it was necessary, in addition to the usual moorings, to lash her, by a tackle fastened to her masts, to posts upon the pier, to prevent her falling over; on the tide leaving her, the rope being of insufficient strength, the tackle broke when the tide was out, and the ship fell upon her side, by which she was stove in and greatly injured:—in an action on a policy on goods, it was held, that this was a stranding (Bishop *v.* Pentland, 7 B. and C. 219).

And where a ship, bound from Nantes to Dublin, was obliged, from stress of weather, to run into the bay of Palais; the gale increased, and the master let go the two bower anchors and chains; in consequence of the large anchor dragging, and for the preservation of the ship, cargo, and crew, and particularly to prevent the ship going on shore, the master slipped the two chains overboard, got the ship under sail, and succeeded in entering the tidal harbour of Sanzon, where, by reason of its being low water, the ship took the ground; she continued there a month, and floated only eight days in that month, and then, at the top of spring tides:—it was held, that the ship was stranded in the harbour of Sanzon, within the meaning of the usual memorandum in the policy of insurance (Concorn *v.* Gurney, 20 L. T. 221).

2. "Where a vessel takes the ground, in the ordinary and usual course of navigation and management in a tide river or harbour, upon the ebbing of the tide, or from natural deficiency of water, so that she may float again upon the flow of the tide, or the increase of the water, such an event is not to be considered a stranding within the memorandum" (Per Lord Tenterden, in Wells, *ut sup.*); or, "by the term, stranding, neither of the contracting parties could intend a taking of the ground by the ship in the ordinary course of navigation used in the voyage, upon which she was engaged; otherwise, at every ebb of the tide, there would be a stranding; and the memorandum, intended for the security of the underwriters against partial losses upon perishable commodities, would be altogether nu-

gatory, as the smallest injury to the cargo, occasioned at an early part of the voyage, would always be a loss within the policy, by reason of the ship's discharging her cargo in a tide river or harbour" (Per Tindal, C. J. in Kingsford, *ut sup.*).

Thus, a ship, in coming out of port, with a pilot on board, struck upon a rock about the length of a cable and a half from the shore, in consequence of which she fell on her beam-ends, and remained about a minute and a half:—this was held merely a "touch and go" with the ship, and no stranding. (M'Dougle *v.* Ro. Ex. Ass. Co., 4 M. and S. 503). In another case, a ship going up the river to Cork, under the charge of a pilot, twice took ground from the shallowness of the water, and remained aground,—on the first occasion, eight, and on the second, ten hours; each time, she was floated off by the tide, and afterwards, at high water, was moored at a quay in Cork harbour; on the tide ebbing, she fell over on her side, and lay on her broadside for two whole tides, by which the ship and cargo were much damaged; (taking the ground in the manner now mentioned, is no more than usual with all ships of the same class in Cork river):—it was held, that this was not a stranding within the memorandum, as the ship was proceeding in the ordinary way, and took ground on the ebbing of the tide, without any extraneous accident (Hearne *v.* Edmunds, 1 B. and B. 388).

And where a vessel entered a tide harbour, and was moored in the very place indicated by the harbour-master; and, on the tide ebbing, she took the ground in the precise spot where it was intended she should, but, in doing so, she struck on some hard substance, which made two holes in her bottom, and the cargo was damaged:—this was held not to be a stranding,—the ship having taken the ground merely through the ebbing of the tide, and in the very place where it was intended she should (Kingsford *v.* Marshall, 8 Bing. 458).

The same rule, as to stranding, applies to similar accidents on inland navigation; as, where a ship was in the Wisbeach river (an artificial navigation), and it became necessary to draw off the water for the purpose of repairing the navigation, and therefore, the ship was placed in the most secure situation that could be found; but, on the waters sinking, the ship accidentally settled down on some piles, not previously known to be there:—this was held to be a stranding,—the drawing off the water not being an occurrence in the ordinary course of the voyage, and the accident not having happened in the ordinary course of that voyage (Rayner *v.* Godmond, 5 B. and A. 225).

In a question of stranding, or no stranding, the amount of damage sustained by the ship does not enter; as, where a ship was proceeding down a tide river, when the wind suddenly took her

a-head, and *she went ashore, stern foremost, on the mud bank of the river;* there she remained fast for about two hours, till the tide flowed, when she got off, and proceeded on her voyage; it was not found that she had sustained any injury:—but it was held, that this was a stranding, because, if she is *forced* ashore, or *driven* on a bank, and remains for any time on the ground, this is a stranding, without reference to the degree of damage she may thereby sustain (Harman *v.* Vaux, 3. Camp. 430).

Voluntary Stranding, or Running Ashore.—The stranding which has been considered, is that which takes place by violence or accident; but the stranding now to be considered, is that which is done by man *for a purpose.* When a ship is so placed by a storm, or other such like cause, that the safety of her and the cargo are in imminent danger, and, *for the general safety of the whole,* she is intentionally run ashore, this is a voluntary stranding. But it must be made distinctly to appear, that this, and this alone, was the sole object in view, in so running the ship ashore; and, therefore, this running ashore must be shewn to have been done, after as mature deliberation and resolution on the part of the master and crew as the exigencies of the situation will admit. If, at the time, the situation of the ship is so desperate, that, in order to escape from the fury of the storm, and to do the best *for the safety of all,*—the will of man is exerted, in thus resolving to run the ship on shore; and if, in consequence of this determination, she is actually run on shore in what appears to be the least dangerous place, though, in doing so, the violence of the wind or waves may have co-operated in no small degree, the exercise of this will, even under the presence of the then impending circumstances, distinguishes a voluntary stranding from a stranding forced by the violence of the wind and waves, in which man is merely passive.

But when a stranding takes place under such unavoidable circumstances, it is the special duty of the master to preserve a faithful record of the desperate situation in which the ship was placed, of the threatening danger, the peculiar circumstances in which the stranding was resolved upon, the manner in which it was effected, and the condition of the ship and cargo after the stranding had been accomplished. These should be communicated without delay to the owners and the underwriters, or the owners, at least, should communicate these to the underwriters; and at the first opportunity, the master should embody these statements in a formal protest before a notary, and the extended instrument of this protest, he carries along with him among the ship's paper.

If the ship is got off in such a state of safety as to be able to perform her voyage, the loss arising from the voluntary stranding, done

for the general safety of the whole, is made good by an average contribution. But if, in consequence of the stranding, the ship is lost, or becomes a wreck, but the cargo is saved, it has been a much-debated question, whether the cargo so saved shall contribute in general average to the loss of the ship? This properly falls under the head of "GENERAL AVERAGE CONTRIBUTIONS," of which afterwards.

If, in consequence of the stranding, the cargo becomes so damaged, or is in such a state, as to be incapable of being conveyed to its place of destination, the disposal of it where it is, will be considered under "THE POWERS OF MASTER."

Throwing Goods Overboard.—It is an old rule, that "if goods are thrown overboard for the purpose of lightening the ship, the sacrifice, thus made for the sake of all, is to be made good by the contribution of all." It is not, however, with the contribution that the shipowner and shipmaster have immediately to do. It is with the actual overthrowing, the circumstances in which that overthrowing took place, the goods overthrown, and the result of that overthrowing.

In the first place, then, the ship must be in a situation of great danger of being lost, from the violence of the wind, or from the quantity of water she has shipped, or from her being driven on a rock or shallow, when the only chance of preservation seems to be, to lighten the ship by casting out some of the cargo, which, by easing the ship, may be beneficial to all. It must not be because the ship has been at first overloaded, that it becomes necessary to throw out part of the lading; but it must be to lighten her, so as she may escape out of the difficulty and danger into which she has been driven. The goods selected must be those which, after such deliberation as the emergency will admit, seem most to encumber the ship and to obstruct those extraordinary exertions which, in the moment of danger, are required for the general safety; and those goods must be selected and thrown overboard *by the mind and agency of man.* If the goods are forced out of the ship by the violence of the wind or by the storm, or are washed overboard, or otherwise destroyed without any view to the safety of the whole, there is no contribution for the loss of these goods; but they must be so *thrown over* by the agency of man. And the goods must be thus thrown overboard, not in the progress of the ship in the usual course of the voyage, but when she is in a situation *of extraordinary actual or impending danger*, and for the express purpose of lightening the ship *for the sake of all;* so that, if the ship and the cargo remaining on board are lost in the same storm or founder in the same tempest, or if the ship goes to pieces on the rock or shallow upon which she has been driven, there is no contribution for the goods previously thrown overboard.

In effecting this throwing overboard, not only the value of the goods actually thrown overboard, but damage done to other goods, or to the ship herself, by cutting holes in her sides or decks, or destroying her upperworks, in order to facilitate the overthrow,—the damage so sustained forms part of the loss to be borne by the average contribution (2 Arn. 890).

But if the ship and the cargo remaining on board are lost in the same storm, or by the same peril, or though part of the cargo be afterwards saved, but the ship is lost, there is no contribution; nor does the part of the cargo saved contribute to that part which was sacrificed, as the safety of the one did not arise from the sacrifice of the other.

In like manner, if, for the purpose of lightening the ship, part of the cargo is placed in boats or lighters, for the purpose of being conveyed to the shore, and, in the progress to the shore, this part is lost, but the ship and the cargo remaining on board are saved, then there is a contribution for the part so lost, as being the means, by lightening the ship, of the safety of the rest of the concern. But if that part which was placed in boats or lighters has been conveyed in safety to the shore, but the ship herself and the part of the cargo on board are afterwards lost in the same storm or by the same accident,—in such case, that part of the cargo so conveyed to the shore does not contribute to the subsequent loss of the ship and the remainder, as the safety of the one was in nowise connected with or attributable to the after loss of the other. See *infra*, "GENERAL AVERAGE CONTRIBUTIONS."

POWERS OF MASTER.—1. *In Disposing of Wreck.*—The general rule is, that "so long as the subject-matter which the master is entrusted to navigate, continues *as a ship*, and capable of navigation with such repairs as are to be had, he cannot sell it; he can only sell the materials when it is broken up, or becomes a wreck;" and when "no prospect remains of bringing the vessel home, to do the best for all concerned, and, therefore, to dispose of her for their benefit" (Per Richardson, J. in Reid *v.* Darby, 10 East. 143; and Parke, B. in Hunter *v.* Parker, 7 M. and W. 322). This power of sale, therefore, can only be exercised by the master *in cases of extreme necessity*, as in the instance of a wreck which cannot be got off, and when the owner, were he present, and in the exercise of a sound direction, would himself sell. It is necessary to shew, *not merely* that the master has acted according to the best of his judgment, and that the sale has been conducted fairly and honestly, *but further*, that the want of repairs was produced by the perils of the sea,—that the vessel was in a place where no repairs could be had, or, though the repairs might have been had, it was impossible to

procure money to pay for these repairs,—and that there was an urgent necessity for a sale, as the only course which, in the circumstances, was the best for all concerned (Robertson *v.* Clarke, 1 Bing. 445).

It is not enough that the ship may have been surveyed by ship-masters or ship-carpenters, and, by them, held to be irrepairable, or repairable only at an expense exceeding her value when repaired; for such surveys and reports are of no binding force in this country, and when these have, at the time, been duly verified upon oath, they are only evidence of the actual state in which the vessel then was. But, in order to render this survey and report of value as *evidence* of the then actual state of the ship, it is necessary that it clearly distinguish between the extent of the damage which has evidently resulted from the recent perils of the sea, and the damage which is fairly attributable to other and older causes. And it must distinctly appear, that the ship has ceased to retain her character of a ship—that she has become a mere wreck—"*a mere congeries of planks*"—and that she was broken up and sold as a wreck. This will best appear from a few instances.

Thus, a ship, in the course of her voyage, was driven by a current upon the Thistle Rock, twenty-eight miles from Gottenburgh, and the rock penetrated her bottom, and made very large holes, so that the crew were obliged to leave her for the preservation of their lives; the master consulted at Gottenburgh with several persons, among whom was an agent of Lloyd's, who were all of opinion that the ship was a complete wreck, and that the best course was for the master to sell her as she lay; accordingly, on the 4th of October (six days after the casualty), she was sold for a small sum; but, before the sale, on the 2d of October, the ship had floated from the Thistle Rock, and got aground between two rocks, on the island of Forno; from this situation, the mate, with about twenty men, and an anchor and cable, had, on the day before the sale, tried for six hours to get her off, but without success; the purchaser got her off in five days, and in four days more, brought her to Gottenburgh for a small expense; he afterwards completely repaired her for about £750, and after this repair, she was worth £1200:—the jury found for the underwriters, upon the principle in law, that if the master, by means within his reach, could have made a fair experiment to save the ship, with *a fair hope of restoring her to the character of a ship*, he was bound to employ these means, and he could not, by selling, turn it into a total loss (Gardner *v.* Salvador, 1 M. and R. 116).

And where a ship belonging to an owner at Liverpool, having been taken by alleged pirates; and recaptured by one of her Majesty's *ships* of war, and, the master having been killed, she was placed in

charge of a master of the navy to bring to Liverpool; having suffered considerable damage, he put into Fayal, and petitioned the director of the customs for an official survey; there were three made; and the report was to the effect, that the ship could be repaired for about £300; but the master being dissatisfied, obtained a private survey, which resulted in a report that the ship was unseaworthy, and should be condemned; then, on the petition of the master, the director of the customs decreed a sale of the ship by public auction, and gave official notice thereof, according to the custom of the place; she was purchased by a Portuguese merchant, who immediately repaired her, and sent her with a cargo to Bristol, where she was arrested by the original owners:—it was held, 1. that the master (of the navy) had the authority of an ordinary master, and no more; 2. that the validity of the sale must be tried by the law maritime; 3. that by the law maritime, as well as by the law of England, the sale of a ship by a master, though *bona fide*, can be justified only by urgent necessity; 4. that the circumstances of the case did not shew an urgent necessity for the sale; and, 5. that the sale was invalid, and the ship must be restored to the original owner, with costs (*The Segredo*, or *The Eliza Cornish*, 17 Jur. 738).

On the other hand, where a ship, homeward bound from the Mauritius, on making land at Algoa Bay (Cape of Good Hope), met with very bad weather, which increased to a gale, that continued incessantly till she arrived off Symond's Bay, on nearing which, the master, by firing distress guns, got assistance from the inhabitants, who, with much difficulty, brought the ship into port. She was immediately surveyed; but the extent of the damage could not be ascertained, as she had a full cargo on board; she was, therefore, unloaded, and surveyed a second time, when the surveyors—among whom was an agent of Lloyd's—on the master's applying for advice, recommended that the ship should be sold, as the expense of repairing her would much exceed her original value; acting on this advice, and being ignorant of the insurances effected on her, the master sold the ship and the damaged part of the cargo for £1100 (the ship having been valued at £8000, and the freight at £4000, in the respective policies); no estimate of the expense of repairing was produced; but the purchaser succeeded, after a month had elapsed, in bringing the ship round to Table Bay, where she might have been fully repaired, but, finding her so damaged as to make that course unadvisable, she was broken up instead of being repaired:—under these circumstances, the insured on the ship claimed for a total loss, and he was found entitled to recover the full amount, on the ground that an urgent necessity had been made out for the sale (Robertson *v.* Clarke, 1 Bing. 445).

In another case, a ship, insured from the Cape of Good Hope to London, was, while taking in her cargo in Table Bay, driven ashore by a tremendous storm, which left her high and dry in the strand, above the level of high-water-mark, where she lay imbedded eight feet deep in sand, and very much strained and damaged; surveys were made, and the result being that, in the opinion of experienced persons, the ship either *could not be got off at all*, or, if so, *only at a ruinous expense*, the master sold her as she lay, about ten days after the stranding;—in about three months, the purchaser, after several unsuccessful attempts, succeeded in getting her off; and having been repaired (at what expense did not appear), she afterwards made several voyages to England:—in an action on a policy on the freight, as for a total loss, the presiding judge thought the propriety of the sale so clear, that the jury, without hesitation, found for the insured, on the ground that the master was justified in selling (Mount v. Harrison, 4 Bing. 388).

The general right of the master to sell the ship, *as between him and his owner*, has been stated with great precision and accuracy in the following passage:—"That the master has, by virtue of his authority, not merely those powers which are necessary for the navigation of the ship, and the conduct of the adventure to a safe termination, but also a power, *when such termination becomes hopeless, and no prospect remains of bringing the vessel home*, to do the best for all concerned, and therefore to dispose of her for their benefit" (Per Parke, B., in Hunter *v.* Parker, 7 M. and W. 342).

But, here, two circumstances must be kept in view to justify the master in selling the ship:—1. If he has no means of getting the repairs done in the place where the injury occurs; or, 2. If, being a place where they might be done, he has no money in his possession, and is not able to raise any. The first applies to the case where there are neither materials nor workmen for the repairs; and the second, where, though materials and workmen can be found, the master has no means of raising funds to pay for these repairs.

As to the first, the mere fact of the difficulty of procuring materials for the repair will not justify the master in selling the ship, where she is not irreparably damaged, or not so damaged that the expense of the repairs would exceed her value when repaired. For instance, a ship, bound from Cork to Quebec, arrived at the latter place, but the season being too far advanced before she was ready to return, she was removed into the basin; but, before the expiry of the six months in a time policy, she was driven thence by the drift ice, and was damaged by running on the rocks; this was in November, and the condition of the ship could not be ascertained till the next spring, when, on a survey, she was found to be much bulged and

injured, but not irreparably so; in the progress of the repairs, difficulties arose for want of materials; and, after consulting the merchants and agents in the country, the master sold her:—it was held, that the ship should be considered as damaged on 19th November, but not *totally lost* (Furneaux *v.* Bradley, 1 Park, 305).

And as to the inability of the master to procure money or credit for the purpose of repairs, the following case has been decided:—A ship, insured from London to the East Indies and back, was so damaged by the perils of the seas, at the outset of her *homeward* voyage, that she was forced to put back to Calcutta for repairs; on arriving there, several surveys were had, all of which, except one, were attended, at the master's request, by the official surveyor appointed by Lloyd's agents; it appeared by these surveys, that the ship was greatly shattered, and that to repair her would cost £5000 (she being valued in the policy at £8000); Lloyd's agents refused to accept an offer of abandonment, and equally declined to authorise the ship's being repaired; under these circumstances, the master, having in vain sought advice from three of the most respectable houses in Calcutta, and having failed to procure an advance of money *on the hypothecation of the ship* (though he was offered it on hypothecating the *cargo also*), sold the ship at Calcutta for £1200; on the trial, he swore, that he had no money to go on with the repairs, and that, *had the ship been his own*, he would have pursued the same course:—it was found, that there was a justifiable cause for selling the ship; and the owner, who had given notice of abandonment, was held entitled to recover as for a total loss (Read *v.* Bonham, 3 B. and B. 147).

But when the want of means to get the ship repaired arises from the fault or neglect of the agent, or correspondent of the owner, in the foreign port where these repairs are required, the master's inability to repair will not justify a sale, nor entitle the owner (the insured) to recover as for a total loss. As, where a West Indian ship, insured from London to St Thomas, struck upon some sunken rocks just off the harbour of St Thomas, but she was got off and brought into port there, so much damaged that she could not be safely navigated on another voyage without being hove down and repaired; the means for making these repairs existed at St Thomas; but, owing to the negligence of the owner's agents resident there, and the misconduct of the local authorities, who twice condemned the ship upon two imperfect surveys, the repairs were not done; and the master, having tried to sell her as a ship, but being unable to find bidders, and being ordered to tow her out of the harbour, ultimately broke her up, and sold her for firewood:—it was held in law, that, if the ship might have been repaired but for the negligence of

the agents of the insured, he could not recover as for a total loss; and the jury accordingly found, that only an average loss had been sustained (Tanner *v.* Bennet, R. and M. 182).

Again, with respect to the nature and extent of the repairs necessary, these are not to be understood as a complete state of repair, such as may be necessary to enable the ship to carry on the same cargo, but only such repair as is necessary to enable her, as a ship, to keep the sea, and to render her *navigable* and capable of being carried on, either in ballast, or with any kind of cargo, to her port of destination. "The underwriters do not undertake that the ship shall be able to carry this or that cargo; if the ship could have come to England in ballast (*certainly with any cargo*), so that, on arrival, she would have been worth the money expended on her, she ought to have been repaired for the purpose" (Per Lord Tenterden, in Doyle *v.* Dallas, 1 M. and R. 48). The meaning of "repairs" is therefore, such repairs as are necessary to put the ship in a navigable condition for the voyage (Thompson *v.* Colvin, Ll. and W. 140). And as to the expense of these repairs, this must be confined to the repairing of the damage *arising from the perils insured against*, particularly where the ship is admitted in the policy to have been seaworthy at the commencement (Phillips *v.* Nairne, 16 Jur. 194). And, in estimating these expenses, it is a necessary question, What will it cost to repair the ship where she lies? In answering which, all the then existing circumstances must be taken into consideration, as the difficulty of obtaining materials, the unfavourable season of the year, &c. (Thompson, *ut sup.*).

If, then, the damage sustained by the ship from the perils insured against, is so great, as that she cannot be put in a state of repair necessary for pursuing the voyage insured, except at an expense which would exceed her repaired value, the owner is not bound to incur that expense, but is at liberty to abandon, and treat the loss as a total loss (Per Tindal, C. J. in Benson *v.* Chapman, 6 M. and G. 810). But, then, this estimated expense of the repairs must not be a mere *measuring cost*,—not a matter of doubt and uncertainty whether the expense would or would not have exceeded the value; but it must be so preponderating an excess of expense, that no reasonable man could hesitate as to the propriety of selling, under the circumstances, instead of repairing (*Ibid.*, in Soames *v.* Sugwe, 4 C. and P. 283).

2. *Bonds of Bottomry.*—These are in use in all countries of maritime commerce. They are granted by the owner or master under circumstances which authorise him to borrow money, and to pledge *the* keel or bottom of the ship (a part being used for the whole), in *security* of the loss. These are considered valid, upon the ground of

necessity only; and it is upon the same principle of necessity, that a later bond is entitled to priority of payment over a former one, as, without the aid of the later bond, the property would be totally lost, both to the owner and the former holder. This principle is, however, confined to bonds given under this species of necessity, at a foreign port, where the master and owners have no personal credit, and no other means of procuring the necessary supplies for the repair of the ship (*The Rhadamanthe*, 1 Dod. Ad. R. 201). And this right of the master so to take up money on bottomry, must arise out of an unforeseen and unprovided for necessity, as he is not the owner of the ship, and cannot bind him, or give a preference to one over another, but in the special circumstances, and for the general interest of all parties in the protection of the whole. And, therefore, 1. This necessity must arise in the course of, and for the purpose of continuing, the voyage. 2. It must be, generally at least, in a foreign port where supplies and repairs have become necessary. And, 3. The master's powers of borrowing on bottomry must arise on account of his having no other credit, or means of obtaining money on the credit of the property (*Prince of Saxe Coburg*, 3 Hag. Ad. B. 392).

It is the vital principle of these bonds, that they have been taken where the owner was known to have no credit, and no resources for obtaining the necessary supplies; and it is this state of unprovided necessity, that alone supports these bonds, and the absence of that necessity is their undoing. Where bottomry bonds are given fairly and honestly, and for legitimate purposes, they are to be liberally protected. It is important for the interests of commerce, that a master, in a foreign port, standing in need of assistance, arising out of some unforeseen necessity, to complete a voyage, and having no credit, should, for that object, be invested with a power to pledge the ship, and charge upon it the repayment of the loan, in case of her safe arrival; but, on the other hand, it is highly necessary for the protection of shipowners, that the master's power in that respect, should be limited by the necessity of the case, and that the transaction should be cautiously watched. If the master takes up money from a person who knows that he has a general credit in the place, or at least an empowered consignee or agent willing to supply his wants, the giving a bond of bottomry is a void transaction,—not affecting the property of the owner,—only fixing loss and shame on the fraudulent lender; but where honourably transacted under an honest ignorance of this fact,—an ignorance that cannot be removed by any reasonable inquiry,—such bonds are to be upheld, as necessary for the support of commerce in its extremities of distress, and, as such, recognised in the maritime codes of all ages and nations

(Per Lord Stowell, in *The Nelson*, 1 Hag. 175; and Sir John Nichol, in *The Reliance*, 3 Hag. 74).

This bond can be granted, not only by the master appearing on the certificate of registry as appointed by the owners, but by masters substituted and appointed abroad, and by masters by succession. Even where the substituted master was appointed by the consignee of the cargo, by whom also the money was advanced, the bond was sustained (*The Alexander*, 1 Dod. 278). Where also the master was appointed by the consul, and some imputation was attempted to be thrown on the consul's motive for making the appointment to secure his own fees, the bond was sustained (*The Zodiac*, 1 Hag. 320). And a similar decision was pronounced in the case of a British ship, of which the master and officers were murdered in a mutiny, and which, having come into a foreign port, was taken possession of by the British consul, who appointed a master, and gave a bottomry bond on the ship (*The Cynthia*, 16 Jur. 748). In the case of *The Wakefield*, decided in July 1829, and noticed in the report of the case immediately to be referred to, there was a succession of masters, owing to a mortality which prevailed in the West Indies, who were appointed under various circumstances, in different islands, and by the agents or consignees; and some of whom gave bonds for repairs done not only by their own order, but by the directions of their predecessors; and those bonds were sustained, there being nothing to impeach the integrity of the whole transaction. And where a bond of bottomry was granted by a master appointed chiefly by the underwriters after abandonment, the court, on the ground of its having been highly beneficial for the preservation of the property, pronounced for the validity of the bond (*The Kennersley Castle*, 3 Hag. 7).

From the cases already referred to, it has been seen that a bond of bottomry may be granted to the consignee of the cargo, or to a British consul; and bonds have been sustained when granted to the agent of the owner (*The Hero*, 2. Dod. 139), or to one who had previously acted as agent in the concerns of the ship (*The Oriental*, 3 Rob. 243).

It is the general principle applicable to these bonds, that they can alone be given for the furtherance of the voyage on which the ship is actually engaged; and this principle is not affected by the circumstance, that, by the law of the country where she is seized, the ship may be arrested and sold for a debt owing by the owner to his agent at Malta, being the balance of accounts-current between them, incurred anterior to the voyage on which the ship was engaged at the time, and the master had given a bottomry bond in order to release his ship from arrest:—this bond was not sustained (*The Osmanli*, 3 Rob. 198.)

In order to render valid a bond of bottomry, stipulating payment of a principal sum, and marine interest, it is essential that the money should be originally advanced *on the security of the ship itself*,—for the bond cannot be carried back, to cover money which has been advanced before *on personal credit*. But, if the money has been advanced on the express understanding, that it was to be secured by a bond of bottomry, then the execution of that bond may be delayed until the whole amount of the expenses, and of the money necessary to defray them, has been ascertained and advanced; but, it can have no reference to any money advanced before any such security was in contemplation (Per Lord Stowell, in *The Hero*, 2 Dod. 142). And, though it may be a question whether a lender on bottomry is bound to see to the application of the money he advances, yet, it is clear, that he must make due inquiry to ascertain that a necessity exists, and that without money so advanced, the ship cannot proceed on her voyage. When this necessity has been ascertained to exist, the lender may not be required to see to the application of the loan; but, when a ship arrived with a considerable cargo in a foreign port, and remained there for some considerable time, and where the repairs have been unimportant, and all her stores furnished, and then a bond of bottomry granted with maritime interest:—the bond was not sustained (*The Orelia*, 3 Hag. 84).

But a bottomry bond may be good in part, and bad in part; and, accordingly, in *The Hero*, above referred to, the bond was held valid for the money advanced with the view to that security, but it was held altogether void, with respect to that which had been previously advanced on the personal credit of the master, or his owner. And, in another case, the bond bound *the owners personally*, as well as the ship and freight; but the first part was held insignificant, and did not at all affect the efficiency of those parts which had an acknowledged operation (*The Nelson*, 1 Hag. 175).

Bonds of bottomry have no settled or precise form; but it is necessary that there be expressed the occasion which induced the necessity of borrowing on bottomry, the sum so borrowed, the premium or marine interest to be paid, the ship and voyage, the risk to be run by the lender, and the security of the ship itself for payment. No person is entitled to maritime interest upon a loan on bottomry, who does not take upon himself the perils of the voyage; but it is not necessary that his doing so should be declared expressly, and in terms, though this is often done. It is sufficient that the fact can be collected from all the parts of the instrument, construed liberally, so as to give effect to the intention of the parties (Per Lord Tenterden in Simonds v. Hodgson, 3 B. and Ad. 58).

It is essential, therefore, to the validity of a bond of bottomry, in which the maritime interest is stipulated, that the liability of the lender to the sea risks shall appear, or can be fairly collected from its terms, otherwise the bond will be void, both as a charge upon the ship, and against the person of the borrower. Accordingly, where a bottomry bond contained no such liability on the lender, but, on the contrary, the borrower was to run all risks, and be answerable for all misfortunes, and there was an express clause, stipulating payment of the sum borrowed, within thirty days *after intelligence of the loss*:—it was held, that, here, the very essence of bottomry was wanting (*The Atlas*, 2 Hag. 53).

These bonds are for the protection of the foreign merchant advancing the money, who is presumed to be an entire stranger to the owner of the ship, and to have no means of judging of his solvency. With the owner he has no acquaintance, and he has nothing to look to for his security, but the visible property of the ship in his place of residence (Per Lord Stowell in *The Rhadamanthe*, 1 Dod. 206). It is, therefore, a general rule, that the master has no power to borrow money on bottomry, *in the place of his owner's residence*; and, in this respect, the whole of the country of that residence, is held to be the place of his residence, unless, from special circumstances, an extreme difficulty of communication exists between the master and his owner (Abbot. 154). A bottomry bond was held valid, which had been granted at New York, by the master of a vessel, whose owner resided at St John's, New Brunswick—a communication, by electric telegraph, existing between the two cities, but no intimation had been made to the owner of the bottomry, until after the bond had been executed (*The Oriental*, 3 Rob. 243). And a bond of bottomry upon the ship, cargo, and freight, granted by the master, with the consent of the owners of the ship, in the country where the owners resided, was held valid, although no previous communication had been made to the owners of the *cargo*, of the necessities of the ship, and of the intention of taking up money on bottomry,—the bond being granted in Sweden, and the owners of the cargo being resident in Hull (*The Bonaparte*, 3 Rob. 298).

The usual condition of a bottomry bond is, that the principal sum in the bond, with the stipulated interest to become due thereon, shall be payable, at or before the expiration of a certain number of days after the safe arrival of the ship at her moorings in her port of destination, or, in case the ship should be lost, before her arrival at her port of destination from her then intended voyage ; then the payment of the principal sum lent, and interest, shall not be demanded or be recoverable by the lender, but shall cease and determine, and the loss thereby be wholly borne and sustained by the

lender; and that, then and from thenceforth, the bottomry bond shall be void.

Where the master of a ship, after having given a bottomry bond on ship and freight to one person, chartered the ship to another, who, by the terms of the charter-party, was to advance part of the freight to defray necessary expenses already incurred, and the balance of the freight was then made payable to the bondholder in discharge of the bond:—it was held that the bondholder had no claim upon the freight advanced, as against the consignees of the cargo, and the consignee of the freight (*The Cynthia*, 16 Jur. 749). And where the master granted a bottomry bond on the ship, cargo, and freight at the port where the owner of the cargo and charterer of the ship resided, after advertisements for a loan on bottomry had been published, of which the owner and charterer was aware, as well as of the unseaworthy condition of the ship, and of the fact, that his cargo had been laden and unladen while the ship was in port; but no more direct communication was made to him, nor any application for advances:—it was held that the advertisements were not sufficient notice, and, therefore, the bond was held bad, so far as the interest of the owner and charterer was effected (*The Nouva Loanese*, 17 Jur. 263). But a letter from the British consul in a foreign port, written on behalf of the master of a small British ship, and his agent, informing the consignees in England of the damage sustained by the ship, but making no application for money, nor referring to the necessity of repairs,—was held sufficient notice for the purpose of raising money on bottomry (*The Bonaparte*, 17 Jur. 285).

Where the *master* repairs the ship on bottomry, and brings her home, the owner cannot, by refusing to pay the amount of the bottomry bond, entitle himself to recover from the underwriters, as for a total loss on the ship (Wilson *v.* Forster, 6 Taunt. 25); but where the repairs are done, not by the master as the agent of the owners, but by *mere strangers*, without his sanction or authority,—if the ship arrives charged with bottomry expenses, which exceed her marketable value:—this is a constructive total loss (Holdsworth *v.* Wise, 7 B. and C. 794).

When the bottomry bond becomes due, the principal sum, and the maritime interest, if not then paid, forms an accumulated sum bearing legal interest (2 Mar. 757).

Sale of Part of Cargo.—In so far as regards the cargo on board, the master is just in the situation of a common carrier, entrusted with goods to their place of destination. This is his only relation to the cargo and its owner; and it is plain, that his primary duty is to convey and deliver that cargo, in terms of his bills of lading. He is not the agent for the owners of the cargo, and has no

power over it; and although, in a case of absolute and urgent necessity, he can, as will be immediately seen, *hypothecate* the ship or cargo, or both, in order to raise money for the purpose of enabling the ship to continue her voyage, he can only so hypothecate the cargo *for this purpose.* In the same case of urgent necessity, it is generally agreed, that the master can sell a *part of the cargo*, for the purpose of applying the proceeds to the repair of the ship, for the prosecution of the voyage; the *sale of a part*, and *the hypothecation of the whole*, being considered in law, the same in the result. But as this authority to sell a part can only arise out of this state of necessity, the same state of necessity must limit the extent to which this authority to sell can be lawfully exercised, and the part sold must only be adequate to the occasion of that necessity. One limitation, however, is effectually prescribed, that this power of selling cannot extend to the *whole*, because it never can be for the benefit of the cargo, that the *whole* should be sold to repair a ship, which is to proceed empty to the place of her destination; and the power of selling, for the repair of the ship, must be limited to the sale of a *part*, though it may not be possible to assign the exact part (Per Lord Stowell in *The Gratitudine*, 3 Rob. Ad. R. 255).

But as the all-important duty of the master is the safe conveyance of the cargo in his ship, to its place of destination, and as his only relation to the owners of the cargo is that of a *carrier*, he has no power to interfere with it, far less to dispose of any part of it. He is only justified in a case of extreme necessity, when his ship cannot prosecute her voyage without repairs, and when he has tried all other resources to raise money to do so, and these have failed, in selling such a part of his cargo as will be sufficient to put his ship in that state of repair, which has been rendered necessary, to enable her to prosecute her voyage, and carry the remainder of the cargo to its place of destination. If a sale is made under any other circumstances, and without this absolute and justifying necessity, which supersedes all human laws, the master and his owners are responsible to the owner of the goods so sold.

As where a ship, in the course of her voyage from India, was wrecked off the Cape of Good Hope, and some indigo, part of the cargo, was saved from the wreck, not materially damaged, and was sold by public auction, by the authority of the master, acting honestly, and according to the best of his judgment, for the benefit of all concerned; but, at a subsequent trial, it was f und, that there was no *absolute necessity* for the sale; and this indigo having been sent to this country, the original owners were held entitled to recover its value (Freeman *v.* East India Company, 5 B. and A. 617). In this case, it was remarked that there was no pretence for a sale,

the ship was wrecked in a British possession, and, the cargo not ıg perishable, nor materially damaged, where abundant means of ıshipment existed; and, at all events, it might have been ware-ısed at the Cape, till the owner's directions had been received, as what was to be done with it.

This sale of part of the cargo, if not otherwise justifiable, will not rendered justifiable or valid, by having been made under the au-rity of a Vice-Admiralty Court abroad (Cannan *v.* Maeburn, 1 ıg. 243); such court having no authority to order a sale.

The loss sustained on the sale of the goods, thus rendered neces-y to defray the expense of necessary repairs, through the inabi-of the master, otherwise to raise money to do so in the port of tress, is not recoverable from the underwriters on the goods; re being no such head known in the law of insurance, as *loss by* . As, where the ship being disabled, by the perils of the sea, n pursuing her voyage, was obliged to put into port to repair; l, in order to defray the expense of these repairs, the master ing no other means of raising money, sold part of the goods, and ılied the proceeds in payment of these expenses:—it was held, t the underwriter on goods was not answerable for this loss ›well *v.* Gudgeon, 5 M. and S. 431). And where a ship being abled, by perils of the sea, from pursuing her voyage, put into a t to repair; and, in order to defray the expenses of these repairs, l having no other means of raising money, the master sold part the goods, and applied the proceeds in payment of these ex-ıses:—it was held, that the underwriter on the goods was not ıwerable for this loss, the sale of the goods being rendered neces-y, not by any peril of the sea, but by the inability of the master find money in any other way to repair the ship (Sarquy *v.* Hob-ı, 2 B. and C. 7). Neither will the underwriter on the freight, liable to the insured, for the loss of the freight of the goods so d (Moody *v.* Jones, 4 B. and C. 394); nor will the owner of the ›ds sold be liable for freight on the goods (Vlierboom, *ut inf.*).

But there are instances in which, under such a case of absolute ıessity, the master will be justified in selling the *whole cargo.* ›pose the case of a ship driven into port with a perishable cargo, ere the master could hold no correspondence with the proprietor; ›pose the vessel unable to proceed, or to stand in need of repairs enable her to proceed in time. In such emergencies, the autho-r of agent is necessarily devolved upon him, unless it could be ›posed to be the policy of the law, that the cargo should be left to ish without care. What must be done? He *must*, in such case, ırcise his judgment,—whether it would be better to tranship the go, if he has the means, or to sell it? It may be admitted that

he is not absolutely bound to tranship; he may not have the means of transhipment; but, even if he has, *he may act for the best in deciding to sell.* If he acts unwisely in that decision, still the foreign purchaser will be safe under his acts:—*if he had not the means of transhipping, he is under an obligation to sell,* unless it can be said that he is under an obligation to let it perish. (Per Lord Stowell in *The Gratitudine*, 3 Rob. 255.)

Thus, where a cargo of rice was shipped at Batavia to be delivered at Rotterdam, but the ship was so disabled in a hurricane as to be compelled to put into the Mauritius, and the rice, having been found to be damaged, and in a state of rapid putrefaction, and, therefore, would have perished if it had been left at the Mauritius, or had awaited the repairs to carry it to its port of destination, was, of necessity, sold by the master, who acted honestly, but without the knowledge of either the shipper or the shipowner:—the sale, therefore, transferred the property, and bound the owner. (Vlierboom v. Chapman, 13 M. and W. 230.) And, where a ship loaded with hides, on a voyage from Valparaiso to Bordeaux, sprung a leak, which obliged her to put into Rio Janeiro, as the nearest port to repair, the whole cargo was *necessarily landed there*, in order to repair the ship, and putrefaction was found to have commenced in the hides, owing to the moisture which had got into the hold through the leak—they being all what is termed "greased," the hair coming off on the fingers on handling. This partial fermentation increased so much at Rio, that it became impossible to send on the hides with any hope of reaching their port of destination *in a saleable state as hides;* for, had it been attempted to carry them on, they would, by the progress of putrefaction, *have lost their character of hides before they arrived at Bordeaux;* and, consequently, they were sold at Rio for a small sum, *for the purpose of tanning.* In this case, and under these circumstances, though the vessel could be, and in fact was repaired, the duty and right of the master immediately to sell, was equally imperative and clear. (Roux *v.* Salvador, 3 Bing. N. C. 524.)

Laying aside the instance of damaged or destroyed goods which have to be sold before the termination of the voyage, when goods are necessarily sold by the master in the port of distress, for the purpose of raising money to pay for the necessary repairs, the loss thence arising must be made good to the owner of the goods by the owner of the ship; and, therefore, as the disposal of any part of the cargo by the master is looked upon with great suspicion, and his motives and actings in doing so are watched with the utmost vigilance, it is preferable, where that can be done, to raise the money required to pay for the necessary repairs, by hypothecation of the ship, cargo, and freight.

HYPOTHECATION OF SHIP, CARGO, AND FREIGHT.—Where the value of the ship and freight is deemed an insufficient security for the sum required in a foreign port, the master has power either to sell a part of the cargo, or to hypothecate the ship, cargo, and freight, *in security* of the sum lent. But, this dangerous power can only be resorted to when all other means of raising money have been tried and have failed; and the ship, cargo, and freight can only be hypothecated *in a port of distress*, for the purpose of raising the necessary funds to pay for those repairs, which are absolutely required by the perils of the sea, to enable the ship to proceed with her cargo to her port of destination.

In the case, therefore, of a ship being in a state of distress in a foreign port, where the master is a stranger, and without an opportunity of communicating with the owners or their agent, and, keeping in view the performance of his duty—*the safe conveyance of the cargo, in the same ship, to the port of destination*—he must first look out for the means of repairing his ship, of putting her in a fit state of repair, for the prosecution and termination of the voyage contracted for; and, to pay for these repairs, thus rendered absolutely necessary, he can, after all other means and resources have been tried and have failed, hypothecate the ship, cargo, and freight as a security for the money so required. That in such an extremity, the master can pledge the ship and freight as a security for the necessary advances, is undoubted, and that he can *sell a part of the cargo* for the same purpose, is established by numerous authorities; and, as the hypothecation of the *whole cargo* for the same purpose, if it affects the cargo at all, will finally operate to *the sale of a part*, the hypothecation *of the whole* is held, in law, equivalent to *the sale of a part*. And that for this very good reason, because it enables *the whole* to be carried to its proper and to the best market, at the place of its destination, and in the hands of its proper consignees. (*The Gratitudine*, 3 Rob. 255.)

But, in such circumstances, the master should be extremely careful to preserve proper evidence of the state in which his ship reached the port of distress—of the extent of the repairs absolutely necessary to enable her to proceed on the voyage—of the estimated expense of these repairs—of the impossibility, difficulty, or delay of communicating with the owners of the ship and cargo—of the means adopted to raise money on the ship and freight—of the impropriety of a sale of a part of the cargo in that port of distress—and of the necessity of hypothecating the ship, cargo, and freight, as a security for the money required to pay for the necessary repairs.

TRANSHIPMENT.—When the master, being a stranger, arrives in a state of distress in a foreign port, and without an opportunity of

communicating with the owners or their agent,—in such circumstances, it is admitted, that, though *empowered* to tranship, if he has the opportunity, he is not *bound* to tranship (Per Lord Stowell in *The Gratitudine, ut sup.*) And, where goods were shipped under a bill of lading in a general ship, which was prevented from completing her voyage in consequence of damage occasioned, and, in consequence of this damage, it became necessary to tranship the goods into other two vessels, by which these goods were forwarded to their port of destination at less than the original freight, and duly delivered to their owner in London :—in an action by the owner of the first ship for the original freight—though the question was not decided whether the master *was bound*, if he had the opportunity, to forward the goods by some other conveyance to their place of destination—it was held, that, at any rate, the master was at liberty to do so, by a conveyance equally cheap, if he thought fit; and if the goods arrived at the place of destination by such other conveyance, he was entitled, on the freighter obtaining the goods, to the whole freight originally contracted for, though the freighter was named as consignee only in the bill of lading; and the bill of lading, under which the goods were shipped by the second conveyance, made another party consignee, and though by the second conveyance the goods were carried for less than the freight originally contracted for (Shipton *v.* Thornton, 9 Ad. & Ell. 314).

In delivering the opinion of the Court of King's Bench in this case, Lord Denman, C.J., stated—"It is clear, that, by the contract, the shipowner, and the master as his agent, is bound to carry the goods to their destination in his own ship, if not prevented from doing so by some event which he has not occasioned, and over which he has no control. When, however, such an event has occurred to interrupt the voyage as above defined, and the shipowner or master has no opportunity of consulting the freighter, there seems to be much disagreement in foreign ordinances and jurists on the point, whether or not he is *bound* to tranship, or, having contracted to carry only in his own ship, he is not absolved from further prosecution of his enterprise, by the *vis magor* (storm or tempest), which prevents his accomplishing it in the literal terms of his undertaking. All authorities, however, are in unison to this extent, that the master is *at liberty* to procure another ship to transport the cargo to the place of destination. It may, therefore, safely be taken to be either the *duty* or the *right* of the shipowner to tranship, in the case above supposed—if it be the former, it must be so in virtue of his original contract; and it would seem to result from a performance by him of that contract, that he will be entitled to

the full consideration for which it was entered into, without respect to the particular circumstances attending its fulfilment;—on the other hand, if it be the latter, a right to the full freight seems to be implied—*the master is at liberty to tranship;* but for what purpose, except for that of earning his full freight at the rate agreed on. In the case supposed, we may introduce another circumstance:—Let the owner of the goods arrive, and insist, as he undoubtedly may, that the goods shall not proceed, but be delivered to him at the intermediate port; there is no question but that the whole freight, at the original rate, must be paid to him; and that because the freighter prevents the master, who is able and willing, and has the right to insist on it, from fulfilling the contract on his part, and because the sending the goods to their destination in another vessel, is deemed a fulfilment of the contract. If, therefore, the owner of the goods be not present, and personally exercises no option, the shipowner, in forwarding the goods, must have the same rights, and, in doing so, must be held to exercise them with the same object in view."

In reference to the question (which did not properly arise for decision in the case in hand), if the transhipment can only be effected at a higher than the original rate of freight, which party is to stand to that loss? his lordship observed—"It may well be, that the master's right to tranship may be limited to those cases in which the voyage may be completed on its original terms as to freight, so as to occasion no further charge to the freighters; and that, where freight cannot be procured at that rate, another but familiar principle will be introduced,—that *of agency for the merchant.* For, it never must be forgotten, that the master acts in a double capacity; he is agent of the owner as to the ship and freight, and agent of the merchant as to the goods; these interests may conflict with each other, and, from that circumstance, may have arisen the difficulty of defining the master's duty, under all circumstances, in any but very general terms. The case now put, supposes an inability to complete the contract on its original terms in another bottom, and therefore the owner's *right* to tranship will be at an end; but still, all circumstances considered, it may be greatly for the benefit of the freighter that the goods should be forwarded to their destination, even at an increased rate of freight; and, if so, it will be the duty of the master, as his agent, to do so—*in such a case* the owner will be bound by the act of his agent, and, of course, will be liable for the increased freight. The rule will be the same, whether the transhipment be made by the shipowner or the master; and, in applying it, circumstances make it necessary on the one hand to repose a large discretion in the master or owner, while the

same circumstances require that the exercise of that large discretion should be very narrowly watched."

GENERAL AVERAGE CONTRIBUTIONS.—The throwing of goods overboard, the causes for doing so, and the effect of the overthrow, have been already considered (*Ante*, p. 288); and, here, there are to be considered the subjects liable to contribute for the loss thereby incurred, and the mode in which the contribution is levied.

As before stated, the old rule is, that if goods are thrown overboard for the purpose of lightening the ship, the sacrifice thus made for the sake of all is to be made good by the contribution of all. Therefore the goods must be *thrown* overboard; and they must be so thrown overboard, *for the purpose* of lightening the ship; and this must be done, *for the sake of all:* and, when these three requisites concur, the loss thus sustained, or the expense thereby occasioned, is made up by a general contribution on the owners of the ship, cargo, and freight, according to the value of the respective interests therein. This contribution of all these parties interested in the adventure, is called general or gross average, because it falls upon the whole or gross amount of the ship, cargo, and freight; and these contributory subjects include the following, and are valued for contribution in the following manner:—

1. The contributory value of the *ship* is the sum she is worth to her owners on her arrival *at the port of delivery;* and, if any part of the ship has been sacrificed, the sum to be paid to her under the general contribution, is to be added to that value, under deduction of *one-third* from the value of the new articles, as, generally speaking, these are of greater value than the articles they are to replace. (Arn. 933, M'Culloch's Commercial Dict.)

2. The contributory value of the *goods* finally saved is their value (market price), as they come into the hands of their owners, *at the port* of delivery, free of all charges for freight, duty, and landing charges. In this contributory value is included, the *net value* as before, of any goods which have been thrown overboard, or necessarily sold at a port of distress, during the voyage. If the goods have deteriorated or are damaged by the perils of the sea, *after* the accident which gives rise to the general average, this is, of course, allowed for in estimating the value of the goods at the port of delivery; but, if this damage has been occasioned by the throwing overboard, for which the average contribution is made, then they are valued *as sound goods*, this damage being allowed for out of the general average contribution. (Stevens on Average, 48).

3. The contributory value of the *freight* is the actual sum finally received by the shipowner *as freight at the port of delivery*, deducting the provisions, the wages of master and seamen, pilot dues, and all

petty averages, for the voyage. (Stev. 63.) The provisions are here deducted from the *freight*, in place of from the value of the *ship*, as it is to the freight to be earned, that the shipowner looks for his reimbursement for the expense of the provisions.

As the general principle of valuing for a general average contribution is, "that the *value* of the property to its owners, is the *value* upon which it ought to contribute towards making good the loss—(Arn. 932),—and, as this value is to be taken as at the port of delivery; so the adjustment is to be made, according to the laws and usages of that port of delivery. (Per Lord Tenterden in Simmonds *v.* White, 2 B. and C. 810). Accordingly, an adjustment so settled at the foreign port of destination, according to the laws and usages of that port, is final and conclusive, as well as to the items of which it is composed, as to the apportionment thereof upon the various contributory interests. And, therefore, where, on an adjustment settled at St Petersburgh, the *owners of the cargo* (British subjects) had to pay, in order to get possession of their goods,—a contribution laid upon them for the expense of repairs, which is general average in Russia, though not in this country; it was held that the owners of the cargo could not recover this back from the owner of the ship, who himself was also a British subject." (Simmonds, *ut sup.*) The same decision was likewise given in a case arising also out of a Russian adjustment, where the contribution was for *wages and provisions* during a refitment, which are not general average in this country; but here it also was held, that the owner of the goods could not recover the sum he had so paid, from the owner of the ship. (Dalgleish *v.* Davidson, 5 D. & R. 6.)

If the general average loss is sustained at the outset of the voyage, and, in consequence, the ship puts back to her *port of loading*, the adjustment is to be settled there; and, in this case, the contributory value of the *ship* will be, her value at the outset,—of the *goods*, their cost on board, without insurance,—and of the *freight*, the net amount earned by the sacrifice.

The parties primarily liable for the general average contribution are, the *owners* of the ship, goods, and freight; but the consignee of the goods, who receives them under *a bill of lading*, is not liable, *as consignee*, unless there be an express condition to that effect in the bill. (Scarfe *v.* Tobin, 3 B. and Ad. 523).

When a general average loss has been sustained in the case of a general ship, it is the common practice for the master, before delivering the goods, to take a bond—called an *average bond*—from the different merchants, for the payment of their proportions when the contributions shall be adjusted. (Abbot, 452).

Wrecks on Coasts of United Kingdom.—1. Whenever any

ship is lost, abandoned, or materially damaged, on or near the coasts of the United Kingdom:—2. Whenever any ship *causes* loss or material damage to *any other ship*, on or near these coasts:—3. Whenever, by reason of any casualty happening to or on board of any ship, on or near these coasts:—4. Whenever any such loss, abandonment, damage, or casualty happens elsewhere, and any competent witnesses thereof arrive, or are found at any place in the United Kingdom, it is lawful for the inspecting officer of the coastguard, or the principal officer of customs, residing at or near the place where this loss, abandonment, damage, or casualty occurred, if the same occurred on or near the coasts of the United Kingdom, but, if elsewhere, at or near the place where the witnesses arrive, or are found, or can be conveniently examined,—or for any other person appointed for the purpose by the Board of Trade, to make inquiry respecting this loss, abandonment, damage, or casualty; and for that purpose, that officer, or other person, has all the powers given by sections 14, 15, and 16 of the Merchant Shipping Act, to inspectors appointed by the Board (§ 432).

If, either upon or without any preliminary inquiry as aforesaid, it appears to the officer, or other person, that a formal investigation is requisite or expedient, or if the Board of Trade so directs, he can apply to any two justices, or to a stipendiary (paid) magistrate, to hear the case, and, thereupon, the justices or magistrates proceed to hear and try the same, and, for that purpose, have the same powers, so far as relates to the summoning of parties, compelling the attendance of witnesses, and the regulation of the proceedings, as if the same were a proceeding relating to an offence or cause of complaint, upon which they or he have power to make a summary conviction, or order, or as near thereto as circumstances permit. It is the duty of the officer, or other persons foresaid, to superintend the management of the case, and to render such assistance to the justices or magistrate, as in his power; and, upon the conclusion of the case, the justices or magistrate send a report to the Board of Trade, containing a full statement of the case, and of their or his opinion thereon, accompanied by such report of, or extracts from, the evidence, and such observations, as they or he may think fit (§ 433).

In cases where nautical skill and knowledge are required, the Board of Trade has the power, either at the request of the justices or magistrate, or at its own discretion, to appoint some person of nautical skill and knowledge to act as assessor to the justices or magistrate; and, upon the conclusion of the case, this assessor either signifies his concurrence in their report by signing the same, or if he dissents therefrom, he signifies this dissent, and his reasons therefor to the Board of Trade (§ 434).

In places where there is a *local marine board*, and where a *stipendiary magistrate* is a member of that board, all the foresaid investigations must be made before this magistrate, whenever he happens to be present; and, in respect of his services under the Merchant Shipping Act, there is paid to him such remuneration, either by way of annual increase of salary or otherwise, as the Secretary of State for the Home Department, with consent of the Board of Trade, may direct (§ 435).

The justices or magistrate can make such order with respect to the costs of any such investigation, or any portion thereof, as they or he deem just, and these costs must be paid accordingly, and are recoverable in the same manner as other costs incurred in summary proceedings before the justices or sheriff. If, in any case, the Board of Trade thinks fit so to do, the Board may pay the expense of any such investigation, and such remuneration to the assessor, as it thinks fit (§ 436). And in the case of any such investigation being to be held in Scotland, the Board may, if it thinks fit, remit the same to the Lord Advocate, to be prosecuted in such manner as he may direct, and, in case he so requires, with the assistance of such person of nautical skill and knowledge as the Board may appoint for the purpose (§ 437).

The justices or magistrate may, or, in Scotland, the person or persons directed by the Lord Advocate to conduct the investigation, may, if they or he think fit, require any master or mate, possessing a certificate of competency or service (whose conduct is called in question, or appears to them or him likely to be called in question, in the course of the investigation), to deliver this certificate to them or him, and they or he hold the certificate, until the conclusion of the investigation, and then, the same is either returned to that master or mate; or, if their report is such, as to enable the Board to cancel or suspend this certificate, under the powers given to the Board by § 438, it is forwarded to the Board, to be dealt with as it thinks fit. If any master or mate fails to deliver his certificate, when thus required, he incurs a penalty not exceeding £50 (§ 438).

Duties of Receivers.—Throughout the United Kingdom, the Board of Trade has the general superintendence of all matters relating to wreck; and, with the consent of the Commissioners of the Treasury, the Board can appoint any officer of the customs or coastguard, or of the inland revenue, or when it appears to the Board to be more convenient, any other person to be a receiver of wreck in any district, and to perform the duties after mentioned (§ 439). No admiral, vice-admiral, or other person under whatever denomination, *exercising admiralty jurisdiction, must, as such*, by himself, or

his agents, receive, take, or interfere with, any wreck, except as after mentioned (§ 440).—See "Unclaimed Wreck," *post*, p. 323.

Whenever any ship or boat is stranded, or in distress, at any place on the coasts of the sea, or of any tidal water, within the limits of the United Kingdom, upon the receiver of the district within which the place is situated, being made acquainted with the accident, he forthwith proceeds to that place, and, upon his arrival there, takes the command of all persons present, and issues such directions as he thinks fit, with a view to the preservation of the ship or boat, and the lives of the persons belonging thereto, and the cargo and apparel thereof. But it is not lawful for the receiver to interfere between the master and his crew, in matters relating to the management of that ship or boat, unless the master requests him so to do (§ 441). And the receiver can (*inter alia*) require the master or other person having the charge of any boat or ship near at hand, to give such aid with his men, ship, or boats, as may be in his power; and any person refusing, without reasonable cause, to comply with this request, incurs, for every such refusal, a penalty not exceeding £100 (§ 442).

All the cargo and other articles belonging to a ship or boat so stranded, or in distress, that may be washed on shore, or otherwise lost or taken from that ship or boat, must be delivered to the receiver; and any person, whether he is owner or not, who secretes and keeps possession of such cargo or article, or refuses to deliver the same to the receiver, or to any person authorised by him to demand the same, incurs a penalty not exceeding £100. The receiver, or other person foresaid, is entitled to take such cargo or article by force, from the person so refusing to deliver the same (§ 443). And whenever any person plunders, creates disorder, or obstructs the preservation of any ship or boat stranded, or in distress, as aforesaid, the receiver can cause such person to be apprehended, and can use force for the suppression of such plundering, disorder, or obstruction, and can command all her Majesty's subjects to assist him in the use of that force (§ 444).

During the absence of the receiver from the place of accident, or in places where no receiver has been appointed, the following officers in succession, viz., any principal officer of customs, or of the coastguard, or officer of inland revenue, and also any sheriff, justice of peace, commissioned officer on full pay in her Majesty's naval service, or commissioned officer on full pay in her Majesty's military service, each in the absence of the other, in the order in which they are named, can do all matters and things authorised by the Merchant Shipping Act, to be done by the receiver, with the exception that, with respect to any goods or articles belonging to any ship or

boat so stranded, or in distress, the delivery up of which to the receiver is required as before mentioned, any officer so acting, is considered as the agent of the receiver, and must place the same in the custody of the receiver. No person so acting as substitute for a receiver, is entitled to any fees payable to the receiver; but he is not deprived, by his so acting, of any right to salvage to which he would otherwise be entitled (§ 445).

For the purpose of rendering assistance to a ship or boat so stranded, or in distress, or of saving the lives of the persons on board the same, or the cargo or apparel thereof, all persons can pass and repass, with or without carriages or horses, over the adjoining lands (unless there is some public road equally convenient), without being subject to interruption, doing as little damage as possible; and, on the like condition, can deposit on these lands, any cargo or other article recovered from that ship or boat. All damage thereby sustained, is a charge on the ship, boat, cargo, or article, in respect of or by which that damage was occasioned; and, in default of payment, it is recoverable in the same manner as salvage is recoverable. (See post §§ 497, 498, pp. 324, 325). In case of dispute as to the amount so payable, that amount is to be determined in the same manner as the amount of salvage is directed, by §§ 460, 461, 462, and 464, to be determined in case of dispute (§ 446).

If the owner or occupier of the lands does any of the following things:—1. Impedes or hinders any person from so passing or repassing, with or without carriages, horses, and servants. 2. Impedes or hinders the deposit of any cargo or other article recovered from such ship or boat, as before mentioned. 3. Prevents such cargo or other article from remaining so deposited for a reasonable time, until the same can be removed to a safe place of public deposit:—he incurs, for every such offence, a penalty not exceeding £100 (§ 447).

As soon as conveniently may be, the receiver, or in his absence, any justice of peace, can examine upon oath, any person belonging to a ship in distress, on the coasts of the United Kingdom, or any other person who is able to give any account thereof, or of the cargo or stores thereof, as to the following matters:—1. The name and description of the ship. 2. The name of the master and of the owners. 3. The names of the owners of the cargo. 4. The ports or places from and to which the ship was bound. 5. The occasion of the distress of the ship. 6. The services rendered. And, 7. Such other matters or circumstances relating to the ship or cargo on board, as the receiver or justice thinks necessary. This examination is taken down in writing, and two copies of it are made, one of which

is sent to the Board of Trade, and the other to the secretary at Lloyd's; and this latter copy is placed by the secretary, in some conspicuous situation for the inspection of persons desirous of examining it (§ 448).

The following rules must be observed by any person finding or taking possession of wreck within the United Kingdom: (1) if the person so finding or taking possession of wreck *is the owner*, he must give notice, as soon as possible, to the receiver of the district, within which that wreck is found, stating, that he has found or taken possession of the same; and, in this notice, he must describe the marks by which that wreck is distinguished: (2) if any person, *not being the owner*, finds or takes possession of any wreck, he must, as soon as possible, deliver the same to the receiver as aforesaid. Any person making default in obeying these provisions, incurs the following penalties: (3) if he is *the owner* and makes default in performing the several things, the performance of which is imposed by this section *on the owner*, he incurs a penalty not exceeding £100: (4) if he is *not the owner* and makes default in performing the several things, the performance of which is imposed by this section on any person not being *an owner*, he forfeits all claim to salvage;—he must pay to all the owners of the wreck, if the same is claimed, or, if unclaimed,—then, to the person entitled to such unclaimed wreck,—double the value of that wreck (this value being recoverable in the same manner as a penalty of the like amount);—and he incurs a penalty not exceeding £100 (§ 450).

If any receiver suspects or receives information, that any wreck is secreted, or in the possession of a person who is not the owner thereof,—or is otherwise improperly dealt with,—he can apply to a justice of peace for a warrant, and the justice has power to grant a warrant,—by virtue whereof, it is lawful for the receiver to enter into any house or other place, wherever situate, and also into any ship or boat, and to search for, and seize and detain any such wreck therein found. If this seizure is made in consequence of information given by any person to the receiver, the informer is entitled, by way of salvage, to such a sum as the receiver may allow, not exceeding in any case £5 (§ 451).

Within forty-eight hours after taking possession of any wreck, the receiver posts up, in the custom-house of the port nearest the place where that wreck was found or seized, a description of the wreck, and of any marks by which it is distinguished; and, if its value exceeds £20, but not otherwise, he transmits a similar description to the secretary at Lloyds, who posts it up in manner before mentioned (§ 452).

Unclaimed Wreck in the United Kingdom.—In the event of

no owner establishing a claim to wreck found in any place in the United Kingdom, before the expiration of a year from the date at which the same has come into the possession of the receiver,—then, if any admiral, vice-admiral, lord of the manor (in Scotland, "heritor feudally vested"), or other person entitled for his own use to unclaimed wreck, found in any place within a district for which a receiver is appointed, has delivered to the receiver a statement of his title, and has proved, to the satisfaction of the receiver, that he is entitled to wreck found at that place,—it is the duty of the receiver, whenever he takes possession of any wreck found at any such place, to send within forty-eight hours thereafter, a description of the same, and of any marks by which it is distinguished, directed to the address of that admiral, &c., and, upon payment of all expenses, salvage, and fees due in respect of that wreck, to deliver up possession thereof to him (§§ 454, 471).

If no owner establishes his claim to wreck found at any place, before the expiration of a year as aforesaid, and if no admiral, &c., other than her Majesty, is proved to be entitled to such wreck,—the receiver forthwith sells the same, and, after payment of all expenses attending the sale, and deducting therefrom his fees, and all expenses incurred by him, and paying to the salvors such amount of salvage as the Board of Trade may, in each case or by any general rule, determine,—he pays the same into the receipt of her Majesty's Exchequer, in such manner as the Treasury may direct (§ 475).

Offences in respect of Wreck.—Whenever any ship or boat is stranded, or otherwise in distress, on or near the shore of any sea or tidal water in the United Kingdom, and that ship or boat, or any part of the cargo or apparel thereof, is plundered, damaged, or destroyed by any persons riotously and tumultuously assembled together, whether on shore or afloat, full compensation must be made to the owner of that ship, boat, cargo, or apparel, as follows:—

In England, by the inhabitants of the hundred, wapentake, ward, or district in the nature of a hundred, by whatever name denominated, in or nearest to which the offence is committed, in manner provided by 8 Geo. IV. c. 31, or as near thereto as circumstances permit:

In Ireland, by the inhabitants of a county, county of a city or town, barony, town or towns, parish or parishes, in or nearest to which the offence is committed, in manner provided by 4 Wil. IV. c. 37, or as near thereto as circumstances permit:

In Scotland, by the inhabitants of the county, city or borough, in or nearest to which the offence is committed, in manner provided by 1 Geo. II. § 2, c. 5, or as near thereto as circumstances permit (§ 477).

Every person, who does any of the acts now to be mentioned, incurs, for each such offence, a penalty not exceeding £50, in addition to any other penalty he may be subject to under the Merchant Shipping Act, or any other act or law, viz.:—

(1.) Wrongfully carries away or removes any part of a ship or boat stranded, or in danger of being stranded, or otherwise in distress, on or near the shore of any sea or tidal water, or any part of the cargo or apparel thereof, or any wreck: or,

(2.) Endeavours, in any way, to impede or hinder the saving of any such ship, boat, cargo, apparel, or wreck: or,

(3.) Secretes any wreck, or obliterates or defaces any marks thereon:

And every person,—not being a receiver, or a person authorised by § 445 to take command in cases of ships stranded or in distress, —or not acting under the orders of the receiver or that person,—who, without leave of the master, endeavours to board any such ship or boat, incurs, for each offence, a penalty not exceeding £50; and it is lawful for the master to repel by force any person so attempting to board that ship or boat (§ 478).

If any person takes into any foreign port or place, any ship or boat stranded, derelict (abandoned), or otherwise in distress, on or near the shore of the sea, or of any tidal water situate within the limits of the United Kingdom, or any part of the cargo or apparel thereof, or anything belonging thereto, or any wreck found within the limits foresaid, and there sells the same, he is guilty of felony, and is subject to penal servitude for a term not exceeding four years (§ 479).

Salvage (General).—Whenever services, for which salvage is claimed, are rendered either by the commander or crew or part of the crew of any of her Majesty's ships, or of any other ship, and the salvor *voluntarily agrees to abandon his lien* upon the ship, cargo, and property alleged to be salved, upon the master or other person in charge thereof entering into a written agreement, attested by two witnesses, to abide the decision of the High Court of Admiralty, or any Vice-Admiralty Court, and thereby giving security in that behalf to such amount as may be agreed on by the parties to the agreement,—this agreement binds the ship, and the cargo, and the freight payable therefor respectively, and the respective owners of the ship, cargo, and freight, for the time being, for the salvage adjudged to be payable in respect of the ship, cargo, and freight respectively, to the amount of the security so given; and this agreement can be adjudicated upon and enforced, in the same manner as the bonds provided for by § 487 (*ut infra*), in the case of detention for salvage services rendered by her Majesty's ships (§ 497).

Upon this agreement being made, the salvor and the master, or other person in charge, respectively make such statements as required (by § 486, *infra*) to be made by them in the case of a bond being given, except that such statements need not be made upon oath; and, as soon as practicable, the salvor transmits the agreement and statements to the court in which the agreement is to be adjudicated upon (§ 497).

Whenever the aggregate amount of the salvage, payable in respect of salvage services *rendered in the United Kingdom*, has been finally ascertained, and exceeds £200,—and whenever the aggregate amount of the salvage, payable in respect of salvage services rendered elsewhere, has been finally ascertained, whatever the amount may be—then, if any delay or dispute arises as to the apportionment thereof, any court having Admiralty jurisdiction, can cause the same to be apportioned among the persons entitled thereto, in such manner as it thinks just. For this purpose, the court can, if it think fit, appoint any person to carry this apportionment into effect, and can compel any person in whose hands, or under whose control, that amount may be, to distribute the same, or to bring it into court, to be there dealt with as the court may direct (§ 498).

The High Court of Admiralty has jurisdiction to decide upon all claims whatsoever relating to salvage, whether the services in respect of which salvage is claimed, were performed upon the high seas, or within the body of any county, or partly in one place and partly in the other,—and whether the wreck is found at sea or cast upon land, or partly in the sea and partly on land (§ 476). But the act does not give this court any jurisdiction in respect of salvage services in Scotland, which it has not heretofore had or exercised (§ 543).

All wreck, being foreign goods brought or coming into the United Kingdom or the Isle of Man, is subject to the same duties as if it had been imported into the United Kingdom or Isle of Man; and, if any question arises as to the origin of these goods, they are to be deemed the produce of such country as, on investigation, the Commissioners of Customs determine (§ 499). And the Commissioners of Customs and Excise permit all goods, wares, and merchandise saved from any ship stranded or wrecked *on her homeward voyage*, to be forwarded to the port of its original destination; and all goods, &c., saved from any ship stranded or wrecked *on her outward voyage*, to be returned to the port at which the same were shipped, security being taken for the due protection of the revenue in respect of such goods, &c. (§ 500).

Salvage by her Majesty's Ships.—Where salvage services are rendered by any ship belonging to her Majesty, or by the commander or crew thereof, no claim is made or is to be allowed for any loss,

damage, or risk, thereby caused to that ship, or to the stores, tackle, or furniture thereof, or for the use of any stores or other articles belonging to her Majesty, supplied in order to effect such services, or for any other expense or loss sustained by her Majesty, by reason of these services (§ 484). And no claim whatever, on account of any salvage service rendered to any ship or cargo, or to any appurtenances of any ship, by the commander or crew, or part of the crew, of any of her Majesty's ships, can be adjudicated upon, unless the consent of the Admiralty has first been obtained,—this consent being signified in writing under the hand of the secretary to the Admiralty; and if any person who has originated proceedings in respect of any such claim, fails to prove this consent to the satisfaction of the court, his case must stand dismissed, and he has to pay all the costs of the proceedings (§ 485).

Whenever services, for which salvage is claimed, are rendered to any ship or cargo, or to any part of any ship or cargo, or to any appurtenances of any ship, at any place *out of* the United Kingdom and the four seas adjoining thereto, by the commander or crew, or part of the crew, of any of her Majesty's ships, the property salved must, if the salvor is justified by the circumstances of the case in detaining it at all, be taken to some port where there is either a consular officer, or a Vice-Admiralty court; and, within twenty-four hours after arriving at that port, the salvor and the master, or other person in charge of the property salved, must each deliver to the consular officer or Vice-Admiralty judge, a statement, verified on oath, specifying, so far as they respectively can, and so far as the particulars required apply to the case—

(1.) The place, condition, and circumstances in which the ship, cargo, or property was at the time when the services were rendered for which salvage is claimed:

(2.) The nature and duration of the services rendered:

And the *salvor* must add to his statement,

(3.) The proportion of the ship, cargo, and property, and of the freight, which he claims for salvage,—or the value at which he estimates the ship, freight, cargo, and property respectively, and the several amounts that he claims, for salvage in respect of the same:

(4.) Any other circumstances he thinks relevant to his claim:

And the *master or other person* in charge must add to his statement,

(5.) A copy of the certificate of registry of the ship, and of the indorsements thereon, stating any change which (to his knowledge or belief) has occurred in the particulars contained in his certificate; and stating also (to the best of his knowledge or belief) the state of the title to the ship, for the time being, and of the incumbrances

and certificates of mortgage or sale (if any) affecting the same, and the names and places of business of the owners and incumbrancers:

(6.) The name and place of business of the freighter (if any) of the ship, and the freight to be paid for the voyage she is then on:

(7.) A general account of the quantity and nature of the cargo at the time the salvage services were rendered:

(8.) The name and place of business of the owner of the cargo, and of the consignees thereof:

(9.) The values at which the master estimates the ship, cargo, and property, and the freight, respectively; or, if he thinks fit, in lieu of this estimated value of the cargo, a copy of the ship's manifest:

(10.) The amounts which the master thinks should be paid as salvage, for the services rendered:

(11.) An accurate list of the property saved, in cases where the ship is not saved:

(12.) An account of the proceeds of the sale of the ship, cargo, or property, in cases where the same or any of them are sold at the port before-mentioned:

(13.) The number, capacities, and condition of the crew of the ship, at the time the services were rendered:

(14.) Any other circumstances he thinks relevant to the matters in question:

(15.) A statement of his willingness to execute a bond in the form W, in the schedule annexed to the act, in such an amount as the consular officer or Vice-Admiralty judge may fix (§ 486).

Within four days after receiving the foregoing statements, the consular officer or judge (as the case may be) fixes the amount to be inserted in this bond at such a sum as he thinks sufficient to answer the demand for the salvage services rendered; but this sum cannot exceed one-half of the value which, in his estimation, the ship, freight, and cargo, or any parts thereof in respect of which salvage is claimed, are worth. If either of the foresaid statements is not delivered to the consular officer or judge within the time before required, he can proceed on hearing one of the parties; and, in any proceeding under the act, the consular officer can take affidavits and receive affirmations (§ 487). He also sends notice of the sum he has so fixed, to the salvor and the master; and, upon the master executing the bond (without stamp) in the foresaid form, with this sum inserted therein, in the presence of the said officer or judge, who attests it, and, delivering the same to the salvor, his right ceases to detain or retain possession of the ship, cargo, or property, or any of them, in respect to his salvage claim (§ 488). This bond binds the respective owners of the ship, freight, and cargo, and their respective

heirs, executors, and administrators, for the salvage adjudged to be payable, in respect of the said ship, cargo, and freight respectively (§ 491).

If the ship, cargo, or property in respect of which the claim of salvage is made, *is not owned* by persons domiciled in her Majesty's dominions, the right of the salvor to detain or retain possession thereof does not cease, unless the master procures, in addition to the said bond, such security for the due performance of the conditions thereof. as the consular officer or Vice-Admiralty Judge considers sufficient for the purpose, and places this security in the possession or custody of that officer or judge; or, if the salvor so desires, in the possession or custody of the officer or judge, jointly with any other person whom the salvor appoints for the purpose (§ 489).

At the earliest opportunity, the consular officer or judge transmits the statements and documents sent to him in terms of § 486 *ut sup.*, and a notice of the sum he has fixed as aforesaid, to the High Court of Admiralty of England; or, if the salvor and the master, or other person in charge, as aforesaid, agree that the bond shall be adjudicated upon by any Vice-Admiralty Court, to that court (§ 490). This bond is adjudicated upon and enforced by the said High Court of Admiralty, or by the Vice-Admiralty Court that may have been agreed on as aforesaid. In every proceeding under the Merchant Shipping Act, any such Vice-Admiralty Court has and exercises all powers and authorities which the said High Court now has, or at any time may have, in any proceeding whatsoever before it (§ 492). And the High Court has power to enforce any bond given, in pursuance of the Merchant Shipping Act, in any Vice-Admiralty Court in any part of her Majesty's dominions. All courts in Scotland, Ireland, and the Channel Islands, and the Isle of Man, exercising Admiralty jurisdiction, upon application, aid and assist the High Court of Admiralty in enforcing the said bonds (§ 493).

Any such salvor, as aforesaid, of any ship, cargo, or property, who elects not to proceed under the act, has no power to detain that ship, cargo, or property, but may proceed otherwise for the enforcement of his salvage claim, as if the Merchant Shipping Act had not been passed,—nothing therein contained abridging or affecting the rights of salvors, except in the cases provided for by it (§ 494).

CHAPTER VII.

Stoppage *in Transitu*—Discharge of Cargo—Payment of, and Lien for, Freight—Legal Procedure under Merchant Shipping Act—Legal Procedure (General)—Legal Procedure (Scotland).

STOPPAGE IN TRANSITU.—The meaning of the expression is, that the *unpaid* seller or consigner of goods has a right, on the bankruptcy or insolvency, or approaching bankruptcy or insolvency, of the purchaser or consignee, to countermand, before or on arrival at the place of destination, delivery of these goods to that purchaser or consignee. Into the general principles on which this right is founded, and to the many questions which may arise out of the exercise of it, the shipowner or shipmaster does not require to enter. The master is merely a *common carrier;* and, by his bill of lading, he has undertaken to deliver the goods to the person named in it, *or his assigns*,—that is, to the party to whom he has legally transferred his rights under it; or the bill of lading is taken for delivery to the order of the shipper himself, or to ———, or order *or assigns;* and, in these cases, the master can only deliver to the party to whom the shipper has duly indorsed the bill of lading, or who holds it from the shipper, with a blank indorsement.

In so far as the shipowner and shipmaster are concerned, the points for their consideration, in a question of stoppage *in transitu*, are:—1. Who is the party legally entitled to stop? 2. At what time, and in what manner, is the stoppage to be made? And, 3. What are the effects of a stoppage effectually made?

1. As to the party legally entitled to stop goods in the course of their passage—the simplest case is, that of an unpaid seller or consigner and an insolvent or bankrupt purchaser or consignee, in which case, there can be no doubt of the right of this unpaid seller or consigner to interfere and prevent delivery of the goods; but the equitable consideration, upon which this right is founded, is not confined to the simple case of a seller or consigner and a purchaser or consignee; it is extended to the case of any one who is *essentially* in the situation of a seller or consigner:—as an agent or correspondent abroad, purchasing goods, in his own name, for his principal in this country, and sending an invoice and bill of lading, and drawing bills for the price; or a consigner buying goods on the orders of the consignee, and transmitting them, and charging a commission on the amount of the price (Fiese *v.* Wray, 3 East. 92); and a person who consigns goods to another, on the joint account of himself, and the person to whom they are so consigned, for the purpose of being sold,

is entitled to stop the goods (Newson *v.* Thornton, 6 East. 17); and, of course, the duly-authorised agent of a party in any of these situations, is entitled thus to countermand delivery.

But there is no place for the exercise of this right, in a question between a principal who sends the goods, and the factor or agent to whom he sends these goods, for the purpose of "sale and return;" because, by so sending the goods, the principal—the owner—does not part with the property in them, nor does the factor, by these goods being sent to him for sale and return, become owner of them; there is not, in short, the relation of seller and purchaser between them (Kinloch *v.* Craig, 37 R. 783). In like manner, a party who has only a lien or right of retention over the goods, for work done or labour expended on them, is not entitled, after having placed them on board, and so parted with possession, to stop these goods on their passage and resume possession, so as to revive his right of lien which had previously expired (Sweet *v.* Pym, 1 East. 4).

But into these considerations, the master has nothing to do to enter, in giving effect to a notice duly given to stop, although, in a question between the parties themselves, these may be of importance. What the master has to attend to is this:—Is the party, in whose name this notice to stop has been given, a creditor, or in the situation of a creditor, *for the price of these goods*, of the party to whom, by the bill of lading, they are made deliverable? Having satisfied himself as to this, the master must give effect to a notice to stop, if legally given; and, therefore, the next inquiry is:—

2. At what time, and in what manner, is this stoppage to be made?

As to the first point, the general rule is, that the notice must be given during the course of the voyage, or after arrival at the place of destination, previous to delivery. But, although, to put an end to this right to stop the goods, it is necessary that the goods should have come to the possession of the purchaser or consignee, it is not necessary that this possession need be delayed to be taken till the end of the voyage. No doubt, by the bill of lading, the goods are made deliverable at a particular place, and the goods are held to be in the course of passage,—in law terms, the *transitus* continues,—until they are delivered to the consignee at that place; but this is to be understood of a delivery in the due course of business; for if, before the goods reach this ultimate place of destination, the consignee does any act which is equivalent to taking actual possession, the *transitus* is at an end (per Bayley, J., in Foster *v.* Frampton, 6 B. and C., 106)—as, for instance, where the ship puts into an intermediate port, and the cargo is landed and warehoused *in name of the consignee*, or delivery is taken by the consignee or his agent of a part

of the cargo, *for the purpose, and in the progress, of taking possession of the whole*, not as delivery of a part, *as a part only*, separated from the rest of the cargo; in such cases the *transitus* is at an end; and any intimation to stop, given *after* these acts of possession, by the consignee, is too late (per Pollock, C. B., in Turner *v.* Scovell, 14 M. and W., 36).

Again, as to the manner in which this stoppage is to be made, it is plain that, in order to produce an effectual stoppage, the intimation to stop must be made, either directly and immediately to the master who has the actual custody of the goods, or, if intimation should be made to the shipowner, this intimation should be so made, as that the owner can, by using reasonable diligence, communicate to his master, the fact of such an intimation having been made *to him*, in time to prevent the master delivering the cargo in terms of his bills of lading. For instance, where a cargo of timber was sent from Quebec to port Fleetwood, in Lancashire, and, while the goods were on the voyage, a notice of stoppage was sent to the shipowner in Montrose, in Scotland, and thereupon the shipowner sent a letter to await the arrival of the master at *Fleetwood*, directing him to deliver the cargo to the agents of the *seller;* this was held not to be a sufficient notice of stoppage *in transitu* (Whitehead *v.* Anderson, 9 M. and W., 534).

There is no particular form in which a notice to stop *in transitu* is required to be given, but there is no question, that this notice must be in writing. Generally speaking, it ought to specify the lading of the cargo or goods on board the ship, at the port of lading, for delivery to the person named in the bills of lading, at the port of discharge; the non-payment or non-security of the price in terms of the agreement between the parties; the bankruptcy or insolvency or suspected credit of the party so named; and it must contain, in express terms, a request to the master *not* to deliver the cargo or goods to that party, but to some other party, therein named by the shipper to receive them.

3. Then, as to the effects of this stoppage *in transitu*, when effectually made, so far as the shipowner or shipmaster is concerned,—in the ordinary case between the consigner and the consignee, there is no question that delivery cannot be made to the latter, or to his agent, or any person for him, or on his account. So far, the course to be pursued by the shipmaster is clear; but, keeping in view the different forms in which bills of lading may be expressed, as to the party to whom the delivery is to be made, and that the bills of lading all bear delivery to be made to some person, or to order, *or assigns*, so that delivery may be claimed by separate parties, as indorsees under the separate bills of lading at the same time: what, in these circumstances, should the master do? It is not to

is entitled to stop the goods (Newson *v.* Thornton responsibility of de- of course, the duly-authorised agent of a par dorsations is for value, ations, is entitled thus to countermand de of the claimants has the

But there is no place for the exercise cargo? It may be, that between a principal who sends the go e an unexceptional letter of whom he sends these goods, for the ring the goods to that party; because, by so sending the good timation to the other claimants of not part with the property in can be little risk in his delivering the goods being sent to him for ment of his freight and charges. But, there is not, in short, the letter of indemnity, the proper course for them (Kinloch *v.* Craig, der these circumstances, is, to warehouse the has only a lien or rig *own name*, to preserve his lien for the freight or labour expended der reservation of the creditor's rights, in virtue on board, and so p *transitu*.—See the two following sections.

passage and re CARGO.—Having arrived at the port of destina- which had pre safely moored his ship at the quay or other place

But into having anchored her, as the custom may be, his duty enter, in his ship and crew, and to deliver the manifest and other question the clearances of the ship and cargo, according to the What custom of the place. The lay-days run from the time of nam arrival *at the usual place of discharge* in the port, and not tio *at the port* (Brereton *v.* Chapman, 7 Bing. 539); and if the place of discharge is in a dock, these days are calculated from the day of her arrival in the dock, and not of her coming to her berth (Brown *v.* Johnson, 10 M. and W. 331). And although it is not absolutely requisite for the master to send notice to the consignee, of the ship's arrival; yet, where the consignee or holders of the bills of lading are known to him, it would be, at least, prudent, that he should send written notice to them.

The clearance at the custom-house, of ships in the coasting and import trades, has been already explained (*ante*, pp. 171, 176), and also of ships in the British possessions abroad (*ante*, p. 182). If the cargo is to be delivered at a foreign port, the master must trust to the ship's agent, or the agent of the cargo, to obtain the proper clearance of the ship and cargo; or, in the absence of these, he can have recourse to the British consul. Before sailing on the voyage, the master ought to make himself acquainted with the customs, laws, and regulations at the port of delivery, so that he may know what is required of him, and that no unnecessary delay may take place in the ship's being ready to discharge.

On arrival at the port of delivery, it is usual, and very proper, for the master to take a protest, in presence of a notary-public, or the British consul at a foreign port, *against wind and weather*, as it is *called*; that is, a statement by the master of the course of the ship's

e day of her sailing to the day of her arrival; of the ather she may have encountered; of the seas she of the conduct pursued in any particular cir- he damage sustained by the ship (if any), and nage to the cargo. This narrative should be the daily entries in the official log-book; ring *the instrument of protest* with him, for of losses and average.

g ready, the master must proceed, without delay, cargo to the consignee or his agent, or to the holders of lading duly indorsed, upon production of these bills of and upon payment of the freight and charges, unless parti- r terms of payment have been agreed on. The goods must be delivered expressly in terms of the bill of lading; and this delivery must be made, according to the custom and practice usually observed at the port or place of delivery. Where the goods do not require to be landed at any particular public wharf or dock, or where the consignee does not appear to take delivery in due time, the practice in this country is, for the master to deposit the goods in the hands of a wharfinger, or in a public warehouse, in his own name, to secure his lien for the freight and charges, unless this right of lien has been excluded by the special terms agreed on for payment.

If, on the expiry of the lay-days, the consignee or holders of the bills of lading have not taken delivery of the cargo, or have not fully unladen the ship, the master ought to intimate to these parties, by a protest, that the lay-days have expired, and that, henceforth, the ship is on demurrage, and that, if the whole is not unladen before the expiry of the demurarge days, the master will warehouse the cargo in his own name, to secure his lien for freight and charges. The same course ought to be followed, where two or more parties appear and claim the goods,—say the consignee or a holder of a bill of lading blank indorsed, and the shipper's agent holding a bill of lading specially indorsed to him; in such a case, the master should, for his own safety, and in absence of a letter of indemnity from any of the parties, warehouse the goods in his own name, in security of his freight and charges. Where, also, the bill of lading has been indorsed conditionally,—as, if the party named accept *and pay* the bills drawn on him, if not, then to another party named;—in this case, the master must have satisfactory evidence produced to him,—either that the party first named has accepted *and paid* the bills drawn on him in terms of the indorsement, before the master deliver the goods to him,—or that he has failed to accept and pay the bills so drawn on him, before the master can safely deliver the goods to

the second party named (Barrow *v.* Coles, 3 Camp. 92; Mitchell *v.* Ede, 11 Ad. and Ell. 888).

But, if the bill of lading is in the hands of an honest and onerous indorsee, who has acquired right to it for value, in the ordinary course of business, and to whom no suspicion attaches, either from the person named in it, or from an equally honest and onerous indorsee, then the master is justified in delivering the goods to that party, and by such delivery, he discharges the obligation undertaken by him in his bill of lading.

If, however, no party appears, either as the consignee named, or as the holder of a duly indorsed bill of lading, to enter the goods at the custom-house and take delivery of them, during the running of the lay-days, the master should enter and land them in his own name, and deposit them in some place of safe custody, under his lien for the payment of freight and charges.

PAYMENT OF, AND LIEN FOR, FREIGHT.—It is the usual stipulation in ordinary bills of lading, that the goods shall be deliverable to the party named, or to order, *or assigns*, "he or they paying freight for the same," at the specified rate, with primage and average accustomed; and under a bill of lading in this form, there is no doubt that the master can refuse to part with possession of the goods, without, at the same time, receiving payment of his freight and charges. And, on the other hand, the actual receiving of the goods under such a bill of lading, is evidence of a new agreement, by the person so receiving them, to pay the freight due upon these goods, in terms of the bill of lading (Cook *v.* Taylor, 13 East. 399). Even where the bill of lading had been indorsed to a person, merely as broker who advanced money on it, for sale of the goods, and who, after paying himself his own advances, paid over the balance of the proceeds to his principals, without paying the freight; he was held liable for the freight, both as indorsee of the bill of lading, and as being something more than a mere agent to receive, viz., an agent with an interest (Bell *v.* Kymer, 3 Camp. 545).

But, where the party to whom the goods are delivered, is known to be, or appears on the face of the bill of lading to be, the mere agent of the consignee, in whom alone the right of the goods is vested, the promise to be inferred from the receipt of the goods, by that known agent or under such a bill of lading, is a promise by him, *as agent*, to pay the freight *on account of the consignee*, and not a promise to be personally responsible (Ward *v.* Felton, 1 East. 307; Amos *v.* Temperly, 8 M. and W. 798).

So, where a ship was chartered on a voyage out and home for a specified time, at a certain rate of freight for the homeward voyage,

in full for the hire of the ship for the stipulated time, to be paid in part by an advance on the ship's clearing for the outward voyage, and the rest on her return, by bills at a certain date; and on the loading of the homeward cargo, a bill of lading was signed, to deliver the goods to the charterers or assigns, "he or they paying freight for said goods *as per charter-party:*—it was held, that the indorsees of the bill of lading, *for a valuable consideration*, were not liable to the shipowner upon an implied promise to pay freight, *arising out of the receipt of the goods under the bill of lading* (Moorsom *v.* Kymer, 2 M. and S. 303). And where, by a charter-party, the cargo was to be loaded by the charterer's agent, and the ship was to proceed therewith to London, and deliver the same on being paid freight at the rate specified; by the bills of lading, the goods were to be delivered to the charterer, *or assigns*, he or they paying freight, *as per charter-party;*—before the ship arrived, the charterer sold part of the goods to a third party, and indorsed to him the corresponding bills of lading; and when the ship arrived, the goods so sold were, by his orders, entered in his name at the custom-house and docks, he paying the duties; and he obtained possession of the goods under the bill of lading and indorsement:—it was held, that, whether the facts found by the jury, were or were not evidence of a contract by this third party with the shipowner, to pay freight for the goods sold (which was doubtful), no such contract was implied by law from the facts, nor could the court assume such a contract; and further, *that, if the bill of lading had not referred to the charter-party*, but had merely stated that the goods were to be delivered to the consignee or assigns, on their paying freight, the taking the goods under the indorsement, would have been evidence from which a jury might have inferred a contract between the indorsee and the shipowner to pay freight; but that, even in such a case, no such contract would arise by implication of law (Sanders *v.* Vanzeller, 4 Ad. and Ell. N. S. 260).

In such cases, and before parting with possession of the goods, over which he has a lien for freight and charges, the master ought to receive from the party to whom delivery is to be made, in whatever character he is to receive them, an explicit (it ought to be a written) promise to pay the freight and charges, at the time of receiving delivery of the goods. If the master parts with possession, without receiving such a reliable promise, he, by so parting with possession, loses his lien over the goods for his freight and charges.

This lien is the right which the owner or master of a ship has to retain the goods laden on board his ship, and so in his own possession, until the payment of the freight due in respect of them,

whether by a charter-party, or under a bill of lading, unless, by the former, the terms of the payment of the freight have been so fixed, as to be inconsistent with the exercise of this right. Even where the freight is made payable by bills at certain dates after the *day of the ship's arrival* at her port of discharge, before she can have began to unload,—the shipowner is entitled to retain possession of the cargo, until the bills be delivered (Campion *v.* Colvin, 3 Bing. N.C. 17). And if these bills are dishonoured, while any part of the cargo remains in his possession, he is entitled to a lien on that part, for the unsatisfied freight (Stevenson *v.* Blacklock, 1 M. & S. 535). But where the payment is to be made by approved bills, and the owner objected to a bill delivered to him, but afterwards negotiated it:—it was held, that he thereby lost the benefit of his objection, and his right to retain the goods (Horncastle *v.* Farran, 3 B. & A. 497).

Where the ship is loaded under a charter-party, with the goods of the charterer, and also with the goods of third parties under bills of lading, the latter being deliverable to the consignees, on payment of the freights therein specified; and the freight is made payable in certain portions, by good bills at certain dates,—the bills for the first portion having been dishonoured, and no bills for the other portion having been granted:—it was held that, as the freight per charter-party was to be paid by the freighter in good bills, prior to delivery of the homeward cargo, the shipmaster had a lien thereon for the freight; and that he had a right to receive the freight per bills of lading from the consignees, and had a like lien on that freight when so received (Christie *v.* Lewis, 2 B. & B. 410.) And where, under a charter-party in the ordinary terms, goods of the charterer and sub-freighters were shipped on bills of lading, bearing "freight payable for charter-party:"—it was held that, as to so much of the goods as were considered to belong to the charterer, they were subject to the lien of the owner, to the full extent of the freight due under the charter-party, and that, as to the goods of sub-freighters, they also were liable to the owner's lien, to the extent of the freight due upon each of these consignments (Faith *v.* East India Co. 4 B. & A. 630).

There is no lien over the cargo actually shipped, for a sum due as dead freight, or damages payable for the unoccupied part of the ship, nor for demurrage (Birley *v.* Gladstone, 3 M. & S. 205).

If the charterer load the ship with a larger quantity of goods than can be reasonably stowed in the hold and other places appropriated to the carriage of cargo, and the cabin has to be occupied with the excess; the shipowner is entitled to charge freight for this excess at the current freight of the day, at the place of shipment (Micheson *v. Nicoll,* 19 L. T. 229).

LIABILITY OF THE MASTER.—The various penalties and forfeitures to which the master of a ship is subjected, under the Customs Consolidation Act, and the Merchant Shipping Act, have been considered in the previous chapters of the present part; and, here, it is proposed to consider his personal liability under contracts in relation to the ship, entered into by him *as master.*

And, 1. The master is personally liable to the seamen for the wages due to them, under the agreement entered into between the master and them. The seamen have a threefold remedy for the recovery of their wages, against the master, against the owners, and against the ship; and, if the master or owner does not pay to every seaman his wages, at the respective periods fixed by § 187 of the Merchant Shipping Act, he, for this neglect or refusal so to make payment, without sufficient cause, must pay to the seamen, a sum not exceeding the amount of two days' pay for each of the days, not exceeding ten, during which payment is delayed beyond the respective periods fixed by the act, for the payment of wages, this sum being recoverable as wages (17 & 18 Vic. c. 104, § 187). These wages, not exceeding £50, over and above the costs of the proceeding, can, so soon as the same becomes payable, be recovered in a summary manner, before any two justices of peace, acting in or near to the place at which *the service has terminated*, or at which the seaman or apprentice *has been discharged*, or at which the person upon whom the claim is made, *is or resides;* or, in Scotland, before the justices or sheriff of the county within which any such place is situated. The order of the justices or sheriff in the matter, is final (§ 188).

2. As the master has authority to order the necessary repairs for his ship, and to provide an adequate supply of stores and provisions, requisite for the use of the ship in the trade, or during the voyage in which she is engaged, or is about to engage, so he is himself personally bound by the contracts so made by him, unless he has taken care, by express agreement, to limit the credit to his owners alone (Abbot, 132).

3. In the case of a general ship, as the master has an implied power, for and on behalf of his owners, to enter into contracts relating to the employment of the ship, in the ordinary course of her employment, so the master himself is answerable for his own contracts to the parties with whom he contracts (Abbot, 124).

In a foreign port, as the master is, generally, the only known representative of the owners, he has full authority to order all repairs necessary for the ship, and all stores and provisions requisite for her use, and also to enter into contracts for the employment of the ship; and, for these supplies, and under these contracts, he himself is

personally responsible, as well as his owners, unless in a place where the latter have a known and accredited agent on the spot, to attend to such matters.

4. By § 516 of the Merchant Shipping Act, it is enacted, that nothing in the ninth part of the act, as to the liability of shipowners, is to be construed to lessen or take away any liability to which any master or seaman, *being also owner or part owner of the ship to which he belongs*, is subject in his capacity of master or seaman. The fourth section of the previous act (53 Geo. 3 c. 159) was a similar enactment; and the meaning of the section is, that, if the master be a part owner, but if he is sued in his character as master, and not as one of the several part owners, he will not be affected by the 503 and 504 sections of the act; but that, if he be sued as one of the part owners, with the other part owners, the circumstance of the loss being occasioned by his fault and with his privity, will not take away from the other part owners, the protection which these sections intended to give them.

LEGAL PROCEDURE UNDER MERCHANT SHIPPING ACT.—1. *Legal Procedure (general).*—In all places within her Majesty's dominions, except Scotland, the offences aftermentioned are punishable, and penalties recoverable, in manner following:—

(1.) Every offence declared by the act (see §§ 102, 140, 164, 176, 207, 226, 239, 284, 320, 366) to be a misdemeanor, is punishable by fine or imprisonment, with or without hard labour. The court before which the offence is tried, may, in England, make the same allowances, and order payment of the same costs and expenses, as if that misdemeanor had been enumerated in the act 7 Geo. 4, c. 64, or any other act that may be passed for the like purpose; and the court before which the offence is tried, may, in any other part of her Majesty's dominions, make such allowances, and order payment of such costs and expenses (if any), as are payable or allowable upon the trial of any misdemeanor under any existing act or ordinance,—or as may be payable or allowable under any act or law, for the time being in force therein:—

(2.) Every offence declared by the act to be a misdemeanor, is also deemed to be an offence, by the act made punishable by imprisonment for any period not exceeding six months, with or without hard labour, or by a penalty not exceeding £100; and can be prosecuted accordingly in a summary manner, instead of being prosecuted as a misdemeanor:—

(3.) Every offence, by the Act made punishable by imprisonment, for any period not exceeding six months, with or without hard labour, or by any penalty not exceeding £100, is, in England and Ireland, to be prosecuted summarily, before any two or more justices,

—as to England, in the manner directed by the 11 and 12 Vict. 43; and as to Ireland, in the manner directed by the 14 and 15 Vict. 93, or in such other manner as may be directed by any act or acts that may be passed for the like purpose:—

(4.) In all cases of summary conviction, in England when the sum adjudged to be paid exceeds £5, or the period of imprisonment adjudged, exceeds one month, any person who thinks himself aggrieved by such a conviction, can appeal to the next court of general or quarter sessions, to be held, not less than twelve days after the day of this conviction, for the county, city, borough, &c., or place, wherein the case has been tried. But the person appealing must give to the complainant, a notice in writing of such appeal, and of the cause and matter thereof, within three days after the conviction, and seven clear days, at least, before the sessions; and he must also either remain in custody until the sessions, or enter into a recognisance (bail bond), with two sufficient sureties, before a justice of the peace, conditioned to appear personally at the sessions, and to try his appeal, and to abide the judgment of the court thereupon, and to pay such costs as shall be awarded by the court:—

(5.) All offences under the act, are, in any British possession, punishable in any court or by any justice of peace or magistrate, in which or by whom offences of a like character are ordinarily punishable, or in such other manner, or by such other courts, justices, or magistrates, as may, from time to time, be determined by any act or ordinance duly made in that possession, in such manner as acts and ordinances are therein required to be made, in order to have the force of law (§ 518).

Any stipendiary (paid) magistrate has full power to do *alone*, whatever two justices are authorised by the act to do (§ 519). And, for the purpose of giving jurisdiction under the act, every offence is deemed to have been committed, and every cause of complaint to have arisen, either in the place in which the same actually was committed or arose, or in any place in which the offender or person complained against may be (§ 520).

In all cases, where any district, within which any court, justice, or other magistrate has jurisdiction, is situate on the coast of the sea, or abutting on or projecting into any bay, channel, lake, river, or other navigable water, that court, justice, or magistrate, has jurisdiction over any ship or boat being on or lying or passing off that coast, or being in or near such bay, &c., and over all persons on board such ship or boat, or, for the time being belonging thereto,—in the same manner as if that ship or boat, or these persons were within the limits of the original jurisdiction of the court, justice, or magistrate (§ 521). Service of any summons, or other matter in

any legal procedure under the act, is good service, if made personally on the person to be served, or at his last place of abode, or if made by leaving the summons for him, on board any ship to which he may belong, with any person being or appearing to be in command or charge thereof (§ 522).

In all cases where any court, justice or justices, or other magistrate, has or have power to make an order directing payment to be made of a seaman's wages (§ 188), or of penalties, or other sums of money,—then, if the party directed so to pay, is the master or owner of a ship, and the same is not paid at the time, and in the manner prescribed in the order,—the court, &c., making the order, in addition to any other powers for the purpose of compelling payment, can direct the amount remaining unpaid to be levied by distress or poinding, and sale of the ship, her tackle, furniture, and apparel (§ 523).

When any penalty is imposed for which no specific application is provided by the act, the court, justice, or magistrate imposing that penalty, can, if thought fit, direct the whole, or any part thereof, to be applied in compensating any person for any wrong or damage which he may have sustained by the act or default, in respect of which that penalty is imposed, or to be applied in or towards payment of the expenses of the proceedings (§ 524).

The time for instituting summary proceedings under the Merchant Shipping Act is limited as follows:—

(1.) No conviction for any offence can be made under the act, in any summary proceeding instituted in the *United Kingdom*, unless that proceeding is commenced *within six months* after the commission of the offence; or, if both or either of the parties to that proceeding happen, during that time, to be out of the United Kingdom, unless the same is commenced within two months after they both first happen to arrive, or to be at one time within the same.

(2.) No conviction for any offence can be made under the act, in any proceeding instituted in any *British possession*, unless that proceeding is commenced within six months after the commission of the offence; or, if both or either of the parties to the proceeding happen, during that time, not to be within the jurisdiction of any court capable of dealing with the case, unless the same is commenced within two months after both first happen to arrive or to be at one time within the same.

(3.) No order for the payment of money can be made under the act, in any summary proceeding instituted in the *United Kingdom*, unless that proceeding is commenced within six months after the cause of complaint arises; or, if both or either of the parties happen, *during* that time, to be out of the United Kingdom, unless the same

is commenced within six months after they both first happen to arrive or to be at one time within the same:

(4.) No order for the payment of money can be made under the act, in any summary proceeding instituted in any *British possession*, unless that proceeding is commenced within six months after the cause of complaint arises; and, if both or either of the parties to the proceeding happen, during that time, not to be within the jurisdiction of any court capable of dealing with the case, unless the same is commenced within six months after they both first happen to arrive or be at one time within that jurisdiction (§ 525).

Any document required by the act to be executed in the presence of, or to be attested by, any witness or witnesses, can be proved by the evidence of any person who is able to bear witness to the requisite facts, without calling the attesting witness or witnesses, or any of them (§ 526). See as to the proof of the agreement with the seamen, § 165, *ante* p. 201.

Whenever any injury has, in any part of the world, been caused to any property belonging to her Majesty, or to any of her Majesty's subjects, *by any foreign ship*,—if, *at any time thereafter*,—that ship *is found in any port or river* of the United Kingdom, or within *three miles of the coast thereof*,—it is lawful for the judge of any court of record in the United Kingdom, or of the judge of the High Court of Admiralty, or in Scotland, the Court of Session, or the sheriff of the county within whose jurisdiction the ship may be, upon its being shewn to him by any person applying summarily, that the injury was probably caused *by the misconduct or want of skill* of the master or mariners of that ship, to issue an order *directed to any officer of customs*, or other officer named by the judge, requiring him to detain that ship *until such time* as the owner, master, or consignee *has made satisfaction in respect of this injury*; *or has given security*, to be approved by the judge, *to abide the event* of any action, suit, or other legal proceeding that may be instituted in respect of this injury, and *to pay all costs and damages* that may be awarded thereon; and any officer of customs or other officer, to whom the order is directed, can detain that ship accordingly (§ 527).

In any case where it appears that, before any application can be made under the foregoing section, the foreign ship will have departed beyond the limits therein mentioned, it is lawful for any commissioned officer on full pay in her Majesty's military or naval service, or any British officer of Customs, or any British consular officer, to detain that ship, until such time as will allow said application to be made, and the result thereof to be communicated to him. No such officer is liable for any costs or damages, in respect of this detention, unless the same is proved to have been made without reasonable grounds (§ 528).

In any action, &c., in relation to such injury, the person so giving security as aforesaid, is to be made defendant or defender, and is to be stated to be the owner of the ship that has occasioned the damage; and the production of the order of the judge in relation to this security, is conclusive evidence of the liability of the defendant or defender to that action, &c. (§ 529).

2. *Legal Procedure* (*Scotland*). — In Scotland, every offence which, by the act, is described as a felony or misdemeanor, can be prosecuted by indictment or criminal letters, at the instance of her Majesty's advocate before the High Court of Justiciary, or by criminal libel at the instance of the procurator-fiscal of the county before the sheriff,—and is punishable with fine, and with imprisonment, with or without hard labour, in default of payment, or with imprisonment, with or without hard labour, or with both, as the court may think fit; or, in the case of felony, with penal servitude, where the court is competent thereto. The court can also, if it think fit, order payment by the offender, of the costs and expenses of the prosecution (§ 530).

All prosecutions, complaints, actions, or proceedings under the act,—other than prosecutions for felonies or misdemeanors,—can be brought in a summary form before the sheriff of the county, or before any two justices of the county or burgh, where the cause of prosecution or action arises, or where the offender or defender may be for the time; and, when of a criminal nature, or for penalties, at the instance of the procurator-fiscal of court, or at the instance of any party aggrieved, with concurrence of the procurator-fiscal; and the court can, if it thinks fit, order payment by the offender or defender, of the costs of the prosecution or action (§ 531).

All prosecutions, &c., under the act, can be so brought, either in a written or printed form, or partly written and partly printed; and, where these proceedings are brought in a summary form, it is not necessary, in the complaint, to recite or set forth the clause or clauses of the act on which the proceeding is founded; but it is sufficient to specify or refer to such clause or clauses, and to set forth shortly the cause of complaint or action, and the remedy sought. When the complaint or action is brought, in whole or in part, for the enforcement of a pecuniary debt or demand, the complaint may contain a prayer for warrant to arrest upon the dependence (§ 532).

On any complaint or other proceeding, brought in a summary form under the act, being presented to the sheriff-clerk, or clerk of the peace, he grants warrant to cite the defender to appear personally before the sheriff or justices, on a day fixed, and, at the same time, appoints a copy to be delivered to him by a sheriff-officer or constable, —and the deliverance also contains a warrant for citing witnesses

and havers to compear at the same time and place, to give evidence and produce the writs specified in their citation. This deliverance may also contain warrant to arrest on the dependence in common form, where such warrant has been prayed for in the complaint or other proceeding. Where the apprehension of any party, with or without warrant, is authorised by the act (see sects. 50, 188, 243, and 246), that party can be detained in custody, until he can be brought, at the earliest opportunity, before any two justices or the sheriff; and, in such case, no citation or *induciæ* are necessary (§ 533).

When it becomes necessary to execute the arrestment on the dependence against goods or effects of the defender, not locally situated within the jurisdiction of the sheriff or justices by whom the warrant to arrest has been granted, it is competent to carry the warrant into execution, on its being indorsed by the sheriff-clerk or clerk of the peace of the county or burgh within which that warrant comes to be executed (§ 534).

In all proceedings under the act, the sheriff or justices have the same power of compelling the attendance of witnesses and havers as in cases falling under their ordinary jurisdiction (§ 535). The whole procedure in summary cases before the sheriff or justices, is conducted orally, without written pleadings, and without taking down the evidence in writing; and no record is kept of the proceedings, other than the complaint, and the sentence or decree pronounced thereon (§ 536). And, in the event of the absence of witnesses, or of any other cause which appears to them to render an adjournment necessary, the sheriff or justices can adjourn the proceedings from time to time, to any day or days to be fixed by them (§ 537).

All sentences and decrees pronounced by the sheriff or justices upon the summary complaints, must be in writing; and where there is a decree for payment of any sum or sums of money against a defender, this decree contains warrant for arrestment, poinding, and imprisonment (when competent) in default of payment,—the arresting, poinding, and imprisoning (when competent) being carried into effect by sheriffs' officers or constables, as in cases arising under their ordinary jurisdiction (§ 538).

In all summary complaints or proceedings for recovery of any penalty or sum of money, if a defender, who has been duly cited, does not appear at the time and place required by the citation, he is held as confessed, and sentence or decree is pronounced against him, with such costs and expenses as to the court seems fit; but he can obtain himself reponed against this decree in absence, at any time before it is fully implemented, in the common form (§ 539).

In all summary complaints or other proceedings not brought for

the recovery of any penalty or sum of money, if a defender, being duly cited, fails to appear, the sheriff or justices can grant warrant to apprehend and bring him before the court (§ 540).

In all cases where sentences or decrees of the sheriff or justices require to be enforced, beyond the jurisdiction of the sheriff or justices by whom these have been pronounced, it is competent to carry the same into execution upon these being indorsed by the sheriff clerk or justice of peace clerk of the county or burgh within which execution is to take place (§ 541).

No order, decree, or sentence, pronounced by any sheriff or justice under the authority of the act, can be quashed or vacated by any misnomer, informality, or defect of form; and all orders, decrees, and sentences so pronounced, are final and conclusive, and not subject to suspension, advocation, reduction, or to any form of review or stay of execution, except on the ground of (legal) corruption or malice on the part of the sheriff or justices (§ 542).

Such of the general provisions with respect to jurisdiction, procedure, and penalties contained in the act, as are not inconsistent with the special rules before laid down for the conduct of legal proceedings, and the recovery of penalties in Scotland, extend, so far as the same are applicable, to these proceedings and penalties. But nothing in any way annuls or restricts the common law of Scotland, with regard to the prosecution or punishment of offences, at the instance, or by the direction, of the Lord Advocate,—or the rights of owners or creditors in regard to enforcing a judicial sale of any ship and tackle, — or to give to the High Court of Admiralty in England any jurisdiction in respect of *salvage* in Scotland, which it has not heretofore had or exercised (§ 543).

APPENDIX.

NOTE A.—P. 2.

RULES TO BE OBSERVED IN BUILDING SHIPS.

(*From Lloyds' Register.*)

TIMBERING.

THE whole of the timber to be of good quality, of the descriptions shewn, as applicable to the several terms of years for which ships so constructed may respectively be appointed to remain on the List of the First Description of the First Class: the stem, stern post, beams, transoms, aprons, knightheads, hawse timbers, and kelson of ships claiming to stand *twelve years*, to be entirely free from all defects; the frame to be well squared from first foothook heads upwards and free from sap, and likewise below, unless the timber be proportionably larger than the scantling hereafter described; every alternate set of timbers to be framed and bolted together to the gunwale. The butts of the timbers to be close, and not to be less in thickness than one-third of the entire moulding at that place, and to be well chocked with a butt at each end of the chock.

I.—*The Scantlings to be as follows:*

	Tons.	Tons.
SCANTLING . . . for Ships	150	500
Room and space to be	20 in.	30 in.
Floors sided, if square, and free from sap, to be not less at the kelson than	8 in.	13 in.
First foothooks sided, if square, at floor heads .	7 in.	11 in.
Second foothooks sided, if square, at the heads .	6½ in.	10 in.
Third foothooks sided, and top timbers, if square .	6 in.	9 in.
The frame to be moulded at kelson . . .	8 in.	13 in.
The frame to be moulded at floor heads . .	7 in.	11 in.
Top timbers to be moulded at their heads at the shear strake	4 in.	5 in.

The intermediate dimensions for the scantling of timbers between the floor heads and the gunwale to be regulated in proportion to the distance from the two points. Should the room and space be increased, the siding of the timbers to be increased in proportion.

II.—*Deck Beams.*

	Tons.	Tons.
For Ships . .	150	500
To be moulded in the middle (not less than) .	7 in.	9 in.
To be moulded at the ends (not less than) .	5 in.	7 in.
And to be sided	7 in.	10 in.

Those at the after-end of the ship to be reduced in proportion to their length.

III.—*Hold Beams.*

	Tons.	Tons.
For Ships . .	150	500
To be moulded in the middle (not less than) .	9 in.	13 in.
To be moulded at the ends (not less than) .	7 in.	10 in.
And to be sided	9 in.	13 in.

Those at the after-end of the ship to be reduced in proportion to their length.

The deck and hold beams to be sufficient in number,* and securely fastened to the sides either with lodging knees of iron or wood, or with shelf pieces; or with a shelf piece and knees; or with some other security equal thereto, so as sufficiently to connect the ends of the beams to the sides of the ship; and, in addition, all vessels of 200 tons shall have at least six *vertical* knees on each side to the DECK beams; and for every additional 50 tons measurement above 200 tons, they shall have one more hanging knee on each side. And ships of 400 tons shall likewise have to their HOLD beams at least eight vertical knees, either as standards or hanging knees (the latter being preferred), and for every additional 100 tons burthen, they shall have one more to each side. Every ship exceeding 150 tons, to have at least one crutch for the security of the heels of the after timbers of the frame; one pair of pointers in addition to a knee at each end of the wing transom to connect the stern frame with the after body of the ship; and a transom over the heels of the stern timbers properly kneed.

* As regards the spacing of Beams, it appears to the Committee that the following scale would in general meet the convenience of stowage in all trades, as well as secure the requisite transverse strength, so essential to be attended to according to the tonnage of the vessel.

The spaces between the beams (hatchways excepted) not to exceed the following distances:—

	Hold Beams.	Deck Beams.
Vessels under 200 Tons .	8 feet	4 feet
—— 200 and under 400 Tons	8 feet and 4 feet alternately, or in that proportion.	One over every Hold Beam, and one in all double spaces.
—— 400 Tons and above .	4 feet 6 inches.	

IV.—*Keel and Kelsons.*

	Tons.	Tons.
For Ships	150	500
Keel, sided	9 in.	13 in.
—— moulded below the rabbet (not less than)	7 in.	10 in.
Main kelson to be sided	10 in.	14 in.
———————— moulded	10 in.	14 in.
The scarphs of kelson, where only one kelson to be	5 ft.	7 ft.
But where rider kelsons are added, then they may be	4½ ft.	6 ft.

Shifts of timber in ships of 200 tons and upwards, to be not less than one-seventh of the main breadth; and in ships under 200 tons, to be not less than one-sixth of the main breadth.

PLANK.

The outside planking shall be of good quality, of the description appointed, and shall be clear of all defects.

The inside planking to be of the description shewn, and free from all foxy, druxy, or decayed planks. The whole to be properly shifted and fastened.

No butts to be nearer than five feet to each other, unless there be a strake wrought between them, and then a distance of four feet will be allowed; and no butts to be on the same timber, unless there be three strakes between, as more particularly shewn in the diagram; but vessels under 200 tons will be exempted from the full operation of this rule, and in ships of larger tonnage, a literal compliance with it will be dispensed with in cases wherein it may be satisfactorily proved that the departure from the rule is only partial, being confined to the ends of the ship, or the thin planking of the topside, and does not injuriously affect the ship's general strength; but such relaxation will not be sanctioned unless an accurate description of the shifting of the plank be transmitted by the Surveyors, to enable the Committee to form a proper judgment on the case.

Thickness of Plank to be as under:

I.—*Outside.*

	Tons.	Tons.
For Ships	150	500
Bilge to wales not less than	2½ in.	4 in.
Short hoods	2½ in.	3 in.
Bilge planks	3 in.	4 in.
Bilge to keel	2½ in.	3 in.
Wales (average)	4 in.	5 in.
Topsides	2 in.	3 in.
Shear strake	3 in.	4 in.
Plank shear	2½ in.	4 in.

II.—*Inside.*

Ceiling below the hold beams . . .	2 in.	3 in.
Clamps and bilge planks	2½ in.	4 in.
Upper-deck Clamps and Spirkettings .	2½ in.	3 in.
'Twixt deck-ceiling	2 in.	2½ in.

III.—*Deck.*

Upper deck	2½ in.	3 in.
Waterways, if of hard wood . . .	4 in.	5 in.
Do. if of Baltic Fir, Pitch Pine, or Red Pine	5 in.	8 in.

Fastenings.

The treenails to be of good English or African Oak, Locust, or other hard wood, but in no case is Baltic or American Oak, or Elm, to be used; and all planks above nine inches in width are to be treenailed double and single, except bolts intervene; and if less than that width, then to be treenailed single, and at least one-half of the treenails must go through the ceiling. All ships to be fastened with at least one bolt in every butt, and from the wales to the lower part of the bilges, the bolt to be through and clenched. The bilges to have at least one bolt through and clenched in each foothook. The sizes of the bolts required in the several parts hereinafter described, to be not less than as against the same expressed,—viz.,

	Tons.		Tons.
For Ships . .	150		500
Heel, knee, and dead wood abaft .	1 in.		1¼ in.
Scarph of the keel . . (In No. 6 Bolts of)	¾ in.	(In No. 8 Bolts of)	1 in.
Kelson bolts, one through each floor	⅞ in.		1⅛ in.
Bolts through the bilge and foot-waling	⅝ in.		⅞ in.
Butt bolts	⅝ in.		¾ in.
Hold beam bolts	⅞ in.		1⅛ in.
Deck beam bolts	¾ in.		⅞ in.
Hooks forward at throat . .	⅞ in.		1⅛ in.
——————— arms . . .	¾ in.		1 in.
Transoms	⅞ in.		1⅛ in.
The lower pintle of the rudder .	2½ in.		3½ in.

In every case where the butt and bilge bolts are not through and clenched, One Year will be deducted from the period which would otherwise be assigned in the classification of the vessel.

RULES OF MEASUREMENT FOR TONNAGE.

(17 and 18 Vict., cap. 104.)

§ 20. Throughout the following rules, the tonnage deck shall be taken to be the upper deck in ships which have less than three decks, and to be the second deck from below in all other ships; and in

carrying such rules into effect, all measurements shall be taken in feet and fractions of feet, and all fractions of feet shall be expressed in decimals.

§ 21. The tonnage of every ship to be registered, with the exceptions mentioned in the next section, shall, previously to her being registered, be ascertained by the following rule, called Rule 1; and the tonnage of every ship to which such rule can be applied, whether she is about to be registered or not, shall be ascertained by the same rule:

(1.) Measure the length of the ship in a straight line along the upper side of the tonnage deck from the inside of the inner plank (average thickness) at the side of the stem to the inside of the midship stern timber or plank there, as the case may be (average thickness), deducting from this length what is due to the rake of the bow in the thickness of the deck, and what is due to the rake of the stern timber in the thickness of the deck, and also what is due to the rake of the stern timber in one-third of the round of the beam; divide the length so taken into the number of equal parts required by the following table, according to the class in such table to which the ship belongs:

TABLE.

Class 1. Ships of which the tonnage deck is, according to the above measurement, 50 feet long or under, into 4 equal parts:

Class 2. Ships of which the tonnage deck is, according to the above measurement, 50 feet long, and not exceeding 120, into 6 equal parts:

Class 3. Ships of which the tonnage deck is, according to the above measurement, above 120 feet long, and not exceeding 180, into 8 equal parts:

Class 4. Ships of which the tonnage deck is, according to the above measurement, above 180 feet long, and not exceeding 225, into 10 equal parts:

Class 5. Ships of which the tonnage deck is, according to the above measurement, above 225 feet long, into 12 equal parts:

(2.) Then the hold being first sufficiently cleared to admit of the required depths and breadths being properly taken, find the transverse area of such ships at each point of division of the length as follows:—Measure the depth at each point of division, from a point at a distance of one-third of the round of the beam below such deck, or, in case of a break, below a line stretched in continuation thereof, to the upper side of the floor timber at the inside of the limber strake, after deducting the average thickness of the ceiling which is between the bilge planks and limber strake; then if the depth at the midship division of the length do not exceed sixteen feet, divide each

depth into four equal parts; then measure the inside horizontal breadth at each of the three points of division, and also at the upper and lower points of the depth, extending each measurement to the average thickness of that part of the ceiling which is between the points of measurement; number these breadths from above (*i. e.*, numbering the upper breadth one, and so on down to the lowest breadth); multiply the second and fourth by four, and the third by two; add these products together, and to the sum add the first breadth and the fifth; multiply the quantity thus obtained by one-third of the common interval between the breadths, and the product shall be deemed the transverse area; but if the midship depth exceed sixteen feet, divide each depth into six equal parts instead of four, and measure, as before directed, the horizontal breadths at the five points of division, and also at the upper and lower points of the depth, number them from above as before; multiply the second, fourth, and sixth by four, and the third and fifth by two; add these products together, and to the sum add the first breadth and the seventh; multiply the quantity thus obtained by one-third of the common interval between the breadths, and the product shall be deemed the transverse area.

(3.) Having thus ascertained the transverse area at each point of division of the length of the ship as required by the above table, proceed to ascertain the register tonnage of the Ship in the following manner:—Number the areas successively 1, 2, 3, &c., No. 1 being at the extreme limit of the length of the bow, and the last No. at the extreme limit of the length of the stern; then, whether the length be divided, according to the table, into four or twelve parts, as in classes 1 and 5, or any intermediate number, as in classes 2, 3, and 4, multiply the second and every even numbered area by four, and the third and every odd numbered area (except the first and last) by two; add these products together, and to the sum add the first and last if they yield anything; multiply the quantity thus obtained by one-third of the common interval between the areas, and the product will be the cubical contents of the space under the tonnage deck; divide this product by one hundred, and the quotient being the tonnage under the tonnage deck, shall be deemed to be the register tonnage of the ship, subject to the additions and deductions hereinafter mentioned.

(4.) If there be a break, a poop, or any other permanent closed-in space on the upper deck, available for cargo or stores, or for the berthing or accommodation of passengers or crew, the tonnage of such space shall be ascertained as follows:—Measure the internal mean length of such space in feet, and divide it into two equal parts; measure at the middle of its height three inside breadths, namely,

one at each end and the other at the middle of the length; then to the sum of the end breadths add four times the middle breadth, and multiply the whole sum by one-third of the common interval between the breadths; the product will give the mean horizontal area of such space; then measure the mean height, and multiply by it the mean horizontal area; divide the product by one hundred, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the tonnage under the tonnage deck, ascertained as aforesaid, subject to the following proviso—first, that nothing shall be added for a closed-in space solely appropriated to the berthing of the crew, unless such shall exceed one-twentieth of the remaining tonnage of the ship, and in case of such excess, the excess only shall be added; and, secondly, that nothing shall be added in respect of any building erected for the shelter of deck passengers, and approved by the Board of Trade.

(5.) If the ship has a third deck, commonly called a spar deck, the tonnage of the space between it and the tonnage deck shall be ascertained as follows:—Measure in feet the inside length of the space at the middle of its height from the plank at the side of the stem to the lining on the timbers at the stern, and divide the length into the same number of equal parts into which the length of the tonnage deck is divided as above directed; measure (also at the middle of its height) the inside breadth of the space at each of the points of division, also the breadth of the stem and the breadth of the stern; number them successively 1, 2, 3, &c., commencing at the stem; multiply the second and all the other even numbered breadths by four, and the third and all the other odd numbered breadths (except the first and last) by two; to the sum of these products, add the first and last breadths; multiply the whole sum by one-third of the common interval between the breadths, and the result will give in superficial feet the mean horizontal area of such space; measure the mean height of such space, and multiply by it the mean horizontal area, and the product will be the cubical contents of the space; divide this product by one hundred, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the other tonnage of the ship ascertained as aforesaid; and if the ship has more than three decks, the tonnage of each space between decks above the tonnage deck shall be severally ascertained in manner above described, and shall be added to the tonnage of the ship ascertained as aforesaid.

§ 22. Ships which, requiring to be measured for any purpose other than registry, have cargo on board, and ships which, requiring to be measured for the purpose of registry, cannot be measured by the rule *above given, shall* be measured by the following rule, called Rule II.:—

(1.) Measure the length on the upper deck from the outside of the outer plank at the stem to the aftside of the stern post, deducting therefrom the distance between the aftside of the stern post and the rabbet of the stern post at the point where the counter plank crosses it; measure also the greatest breadth of the ship to the outside of the outer planking or wales, and then, having first marked on the outside of the ship on both sides thereof the height of the upper deck at the ship's sides, girt the ship at the greatest breadth in a direction perpendicular to the keel from the height so marked on the outside of the ship on the one side to the height so marked on the other side by passing a chain under the keel; to half the girth thus taken, add half the main breadth; square the sum; multiply the result by the length of the ship taken as aforesaid; then multiply this product by the factor ·0018 (eighteen ten-thousandths) in the case of ships built of wood, and by ·0021 (twenty-one ten-thousandths) in the case of ships built of iron, and the product shall be deemed the register tonnage of the ship, subject to the additions and deductions hereinafter mentioned.

(2.) If there be a break, a poop, or other closed-in space on the upper deck, the tonnage of such space shall be ascertained by multiplying together the mean length, breadth, and depth of such space, and dividing the product by one hundred, and the quotient so obtained shall be deemed to be the tonnage of such space, and shall, subject to the deduction for a closed-in space appropriated to the crew as mentioned in Rule I., be added to the tonnage of the ship, ascertained as aforesaid.

§ 23. In every ship propelled by steam or other power requiring engine room, an allowance shall be made for the space occupied by the propelling power, and the amount so allowed shall be deducted from the gross tonnage of the ship, ascertained as aforesaid, and the remainder shall be deemed to be the register tonnage of such ship; and such deduction shall be estimated as follows:

(*a.*) As regards ships propelled by paddle wheels, in which the tonnage of the space solely occupied by and necessary for the proper working of the boilers and machinery is above twenty per cent. and under thirty per cent. of the gross tonnage of the ship, such deduction shall be thirty-seven one-hundredths of such gross tonnage; and in ships propelled by screws, in which the tonnage of such space is above thirteen per cent. and under twenty per cent. of such gross tonnage, such deduction shall be thirty-two one-hundredths of such gross tonnage.

(*b.*) As regards all other ships, the deduction shall, if the Commissioners of Customs and the Owner both agree thereto, be estimated in the same manner; but either they or he may, in their or his discretion,

require the space to be measured and the deduction estimated accordingly; and whenever such measurement is so required, the deduction shall consist of the tonnage of the space actually occupied by, or required to be enclosed for, the proper working of the boilers and machinery, with the addition, in the case of ships propelled by paddle wheels, of one-half, and in case of ships propelled by screws, of three-fourths of the tonnage of such space; and the measurement and use of such space shall be governed by the following rules:

(1.) Measure the mean depth of the space from its crown to the ceiling at the limber strake, measure also three, or, if necessary, more than three breadths of the space at the middle of its depth, taking one of such measurements at each end, and another at the middle of the length; take the mean of such breadths; measure also the mean length of the space between the foremost and aftermost bulkheads or limits of its length, excluding such parts, if any, as are not actually occupied by, or required for, the proper working of the machinery; multiply together these three dimensions of length, breadth, and depth, and the product will be the cubical contents of the space below the crown; then find the cubical contents of the space or spaces, if any, above the crown aforesaid, which are framed in for the machinery or for the admission of light and air, by multiplying together the length, depth, and breadth thereof; add such contents to the cubical contents of the space below the crown; divide the sum by one hundred, and the result shall be deemed to be the tonnage of the said space.

(2.) If in any ship in which the space aforesaid is to be measured, the engines and boilers are fitted in separate compartments, the contents of each shall be measured severally in like manner, according to the above rules, and the sum of their several results shall be deemed to be the tonnage of the said space:

(3.) In the case of screw steamers, in which the space aforesaid is to be measured, the contents of the shaft trunk shall be added to, and deemed to form part of, such space, and shall be ascertained by multiplying together the mean length, breadth, and depth of the trunk, and dividing the product by one hundred:

(4.) If in any ship in which the space aforesaid is to be measured, any alteration be made in the length or capacity of such space, or if any cabins be fitted in such space, such ship shall be deemed to be a ship not registered until measurement:

(5.) If in any ship in which the space aforesaid is to be measured, any goods or stores are stowed or carried in such space, the Master and Owner shall each be liable to a penalty not exceeding £100.

§ 24. In ascertaining the tonnage of open ships, the upper edge of the upper strake is to form the boundary line of measurement, and

the depths shall be taken from an athwartship line, extended from upper edge to upper edge of the said strake at each division of the line.

§ 26. Whenever the tonnage of any ship has been ascertained and registered in accordance with the provisions of this act, the same shall thenceforth be deemed to be the tonnage of such ship, and be repeated in every subsequent registry thereof, unless any alteration is made in the form or capacity of such ship, or unless it is discovered that the tonnage of such ship has been erroneously computed; and, in either of such cases, such ship shall be remeasured, and her tonnage determined, and registered according to the rules hereinbefore contained in that behalf.

§ 27. The rules for the measurement of tonnage herein contained, shall not make it necessary to alter the present registered tonnage of any *British* ship registered before this act comes into operation; but if the owner of any such ship desires to have the same remeasured according to such rules, he may apply to the Commissioners of Customs for the purpose, and such Commissioners shall thereupon, and on payment of such reasonable charge for the expenses of remeasurement, not exceeding the sum of seven shillings and sixpence for each transverse section, as they may authorise, direct such remeasurement to be made, and such ship shall thereupon be remeasured according to such rules as aforesaid, or according to such of them as may be applicable; and the number denoting the register tonnage shall be altered accordingly.

§ 28. If it appears to the Commissioners of Customs that in any steam-ship measured before this act comes into operation, store-rooms or coal-bunkers have been introduced into or thrown across the engine-room, so that the deduction from the tonnage on account of the engine-room is larger than it ought to be, the said Commissioners may, if they think fit, direct such engine-room to be remeasured according to the rules in force before this act comes into operation, excluding the space occupied by such store-rooms or coal-bunkers, or may, if the owners so desire, cause the ship to be remeasured according to the rules hereinbefore contained, and subject to the conditions contained in the last preceding section; and after remeasurement, the said Commissioners shall cause the ship to be registered anew, or the registry thereof to be altered, as the case may require.

NOTE B.—P. 4.

RULES FOR PLACING THE MASTS.

The load-water line is the principal bearance of the ship, from

which are to be determined the positions of the masts, which vary according to the form given to the vessel; as a full-bowed ship requires her masts to be placed further forward than a sharp one. When a sharp-bowed ship has her masts to rake, it frequently eases her in pitching, but never adds to her sailing, as the wind has less power on her sails. It is, however, necessary, that the main and mizen masts should rake more than the foremast,—as, by thus separating them, the wind acts with more power on all the sails than would otherwise be effected. And, as it is a desirable requisite, that the weight of the foremast and the pressure of the head-sails should act with as little injurious effect in increasing the violence of the pitching, as consistent with the necessity for head-sail,—this will be best understood, by considering the forces which act on a ship when under sail.

These forces are two—the one, the force of the wind on the sails, propelling the ship; and the other, the resistance of the water, opposing her motion. Immediately on the ship acquiring the velocity, due to the strength of the wind, these forces are equal, and, as is held with all forces, each may be reasoned on, as if acting on only one point of the surface over which its effect is diffused. This point is that in which, if the whole force were to be concentrated, its effect would be the same as when dispersed over the whole area; it is usual to call these "resultants of forces," and the points on which they are supposed to act, "centres of effort."

Before the positions of the masts can be fixed, it is necessary to make a plan of the sails, and find the "centre of effort." And, in order to find the distance of the "centre of effort" of the wind on the sails, *before* the centre of gravity of the ship,—the momenta of each sail must be calculated, by multiplying its area by the horizontal distance of the centre of gravity from that of the ship; the sum of the *negative* momenta, or those *abaft* the centre of gravity of the ship, is then deducted from the *sum* of the *positive* momenta, or those *before* the centre of gravity of the ship;—the remainder is then divided by the total area of the sails, and the result gives the required distance of the centre of effort of the wind on the sails before the centre of gravity of the ship. The situation of this point with respect to the length of the ship, must determine, in a considerable degree, the positions of the masts; for experience has proved, that it is among the essentially good requisites of a ship, that she shall carry a weather helm.—*Creuze's Naval Architecture.*

Note C.—P. 4.

DESCRIPTION OF PARTS OF ANCHOR.

The anchors now generally made, are so contrived as to support a great strain before they can be loosened or dislodged from their earth-bound bed. The parts of which an anchor is composed, are, —the ring, into which the cable is fastened;—the beam or shank, which is the longest part of the anchor;—the two arms, at the end of which are the two flooks or flukes, by some called the palms, which, with the barbs, fasten into the ground;—and the flock, which is a long piece of wood fastened across the beam, near the ring, and serving to guide the flukes in a direction perpendicular to the surface of the ground, so that one of them sinks into it by its own weight as soon as it falls, and is still preserved steadily in that position by the flook, which, together with the shank, lies flat on the bottom. In this situation, it must necessarily sustain a great effort, before it can be dragged through the earth horizontally. Should the anchor be displaced, it is said, in the sea phrase, *to come home.* The several parts of the anchor, above mentioned, bear the following proportions:—The length of the arm, from the throat to the bill, is the distance marked on the shank for the trend, taken from the inside of the throat; and, three times that, is the length of the shank from the tip of the crown; and the shank, from the tip of the crown to the centre of the ring, is the length of the iron stock; when made, the two arms, from the inside of the throat to the extremity of the bill, should form an arc of a circle, containing 120 degrees.—*British Cyclop.*

SHIPS' ANCHORS AND CABLES.

Lloyds' Rules.

"Every ship is to be supplied with a good hempen stream-cable or tow-line of sufficient size and length, and with at least one good warp; and all vessels are to be provided with anchors of proper weight, and cables of approved quality, in number and length according to the undermentioned scale:—

Anchors.

All vessels under 200 tons to have at least two bower anchors; and all vessels of 200 tons and above, to be provided with at least three bower anchors.

Cables.

	Tons.		Fathoms.	
All vessels.....	under 150	to have at least	150	if chain.
— of 150 and under	250	.....	180	do.
— 250	350	.....	200	do.
— 350	500	.....	240	do.
— 500	700	.....	270	do.
— 700 and upwards		.....	300	do.

But in all cases where hempen cables are used, then one-sixth more in length will be required."

NOTE D.—P. 4.

DEEP SEA LINE.

Deep Sea Line, or Dip Sea Line, is a small line used for sounding, when a ship is in very deep water at sea. At the end of this line is a piece of lead, called the deep sea lead,—at the bottom of which is a coat of white tallow, to bring up stones, gravel, shells, or the like, from the bottom, in order to learn the difference of the ground, —which being entered, from time to time, in the log-book—by comparing of observations—enables them to guess, by the soundings, &c., what coast they are on, though they cannot see the land.

NOTE E.—P. 5.

DESCRIPTION AND USE OF LOG-LINE.

The log is a thin piece of board,—forming a quadrant (quarter) of a circle of about six inches radius, and balanced by a small piece of lead nailed on the circular part, so as to swim perpendicularly in the water with the greater part immersed. The log-line is fastened to the log by means of two legs, one of which is knotted through a hole at one corner, while the other is attached to a pin, fixed in a hole at the other corner, so as to draw out occasionally. The log-line—being divided into certain spaces, which are in proportion to an equal number of geographical miles, as a half or quarter minute is to an hour of time—is wound round a wheel. The whole is employed to measure the ship's headway in the following manner:—The reel being held by one man, and the half-minute glass by another,—the mate of the watch fixes the pin and throws the log over the stern,—which, swimming perpendicularly, feels an immediate resistance, and is considered as *fixed*, the line being slackened over

the stern to prevent the pin from coming out. The knots are measured from marks on the line, at the distance of twelve or fifteen fathoms from the log. The glass is therefore turned at the instant that the log passes over the stern; and, as soon as the sand in the glass has run out, the line is stopped: the water then being on the log, dislodges the pin, so that the board, now presenting only its edge to the water, is easily drawn aboard,—the number of knots and fathoms, which has run off at the expiration of the glass, determine the ship's velocity. The half-minute glass and divisions on the line should be frequently measured, to determine any variation in either of them, and to make allowances accordingly. If the glass runs thirty seconds, the distance between the knots should be fifty feet. When it runs more or less, it should be corrected by the following analogy:—As thirty is to fifty, so is the number of seconds of the glass to the distance between the knots on the line. As the heat or moisture of the weather has often a considerable effect on the glass, so as to make it run slower or faster, it should be frequently tried by the vibrations of the pendulum.

As many accidents attend a ship during a day's sailing,—such as variableness of winds, the different quantity of sail carried, &c.,—it will be necessary to heave the log at every alteration; and, even if no alteration be perceptible, yet it ought to be occasionally heaved.

Note F.—P. 5.

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one-third of that which would break them, or greater than that to which they are commonly exposed in ordinary practice; and these experiments have shewn that,—while the *stretch* or permanent lengthening of the wire-rope is nothing compared with that of hemp, —the difference of springiness is not more than one inch in favour of hemp, in the longest shrouds:—practically, therefore, the less elasticity of wire-rope is of no importance. And another valuable quality of wire-rope rigging is,—its not being liable, by changes in the atmosphere, to those sudden alterations of length to which hemp is subject, and which every seaman knows give rise to inconvenience and great labour in setting up the rigging, and to serious accidents, when, as often happens, the change takes place in a single night, in circumstances which render it impossible to set up the rigging, before the mischief has ensued.

Note H.—P. 34.

BLOCKS.

Blocks are single, double, treble, or fourfold, according as the number of sheaves is one, two, three, or four. The *sheaves*, or wheels on which the rope runs, are grooved to receive the rope, and have in their centre, a brass or iron bush, with a through hole to receive the *pin*, on which the sheaves turn;—the outside of iron or wood is called the shell, and the sides of it are called the *cheeks*; and that part of a block by which it is made fast to any particular object, is the *strap*, usually made of rope or iron. A *running* block is attached to the object to be moved; a *standing* block is fixed to some permanent support. Usually, blocks are named, either from their shape,—their purpose,—or their mode of application.

Note I.—Chap. IX., p. 40.

REEFING TOPSAILS FROM THE DECK.

This ingenious contrivance has been found to answer admirably. The sail reefs itself; and from the time the yard is lowered, it is close-reefed in two seconds; so that, in nautical affairs, this may be ranked as one of the wonders of the age. The invention is not expensive, because the sails and topsail yards now in use, can be easily altered, at an expense not exceeding £15 per yard and sail. This was invented by Mr H. D. P. Cunningham, R.N., private secretary to Admiral Moresly; and the invention has been patented.

NOTE J.—P. 157.

NUMBER AND DIMENSIONS OF BOATS WITH WHICH SEAGOING SHIPS ARE TO BE PROVIDED.

Registered Tonnage.		Column 1. To be carried by Sailing Ships and Steam Ships.								Column 2. To be carried by Sailing Ships and by Steam Ships, when they do not carry the Boats in Col. 3.				Column 3. To be carried by Steam Ships which do not carry the Boat in Col. 2.								Total Number of Boats.	
		Boats.				Boats				Launches.				Boats.				Life Boats.					
Sailing Ships.	Steam Ships.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Sailing Ships	Steam Ships.
Tons.	Tons.		Ft.	Ft. In.	Ft. In.		Ft.	Ft. In.	Ft In		Ft.	Ft. In.	Ft. In.		Ft.	Ft. In.	Ft. In.		Ft.	Ft. In	Ft. In		
..	1000 and upwards	1	18	5 6	2 3	2	24	5 6	2 6	1	27	8 6	3 8	2	22	5 6	2 6	2	28	8 6	3 6	..	7
..	800 to 1000	1	18	5 6	2 3	2	26	6 6	2 8	1	26	8 0	3 8	2	22	5 6	2 6	..	..	..	..	..	4 or 5
800 and upwards	500 to 800	1	18	5 6	2 3	2	24	5 6	2 6	1	26	8 0	3 8	2	22	5 6	2 6	..	..	.	..	4	4 or 5
600 to 800	360 to 500	1	16	5 6	2 3	2	24	5 6	2 6	1	25	7 0	3 6	2	22	5 6	2 6	..	..	..	..	4	4 or 5
400 to 600	240 to 360	1	16	5 6	2 3	1	22	5 6	2 5	1	22	6 6	3 3	2	22	5 6	2 6	..	..	..	..	3	3 or 5
200 to 400	120 to 240	1	14	5 0	2 2	..	..	..	..	1	20	6 0	3 0	2	22	5 6	2 6	..	..	..	..	2	2 or 5
100 to 200	60 to 120	1	14	5 0	2 2	..	..	..	..	1	16	5 6	2 9	2	18	5 6	2 4	..	..	..	..	2	2 or 3
Under 100	Under 60		14	5 0	2 2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1

as the case may be.

Note.—In Sailing Ships carrying the Number of Boats above specified, and Steam Ships carrying the larger of the Two Numbers above specified, the Boats are to be considered sufficient, if their aggregate cubic contents are equal to the aggregate cubic contents of the Boats specified.

In Steam Ships carrying the smaller of the Two Numbers above specified, One of the Boats must be a Launch of the Capacity specified in Col. 2.

In Sailing Ships of 200 Tons Burden and under, not carrying Passengers, a Dingy may be substituted for the Boat in Col. 1.

In Sailing Ships of 150 Tons Burden and under, not carrying Passengers, a substantial Boat of Capacity sufficient to carry the Crew, may be substituted for those above specified.

In all Steam Ships, Two Paddlebox Boats may be substituted for any two of the Boats in Col. 3.

[illegible] K.—[illegible]

[illegible] WITH RESPECTING LIGHTS TO BE CARRIED BY SEA-GOING VESSELS TO PREVENT COLLISION.

By the Commissioners for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c., &c.

By virtue of the power and authority vested in us by the act 14 and 15 Victoria, cap. 79, dated 7th Aug. 1851, we hereby require and direct that the following regulations be strictly observed:—

Steam Vessels.

ALL British sea-going steam vessels (whether propelled by paddles or screws) shall, within all seas, gulfs, channels, straits, bays, creeks, roads, roadsteads, harbours, havens, ports, and rivers, and under all circumstances, between sunset and sunrise, exhibit lights of such description, and in such manner, as is hereinafter mentioned, viz:—

When under steam. — A bright white light at the foremast head.
A green light on the starboard side.
A red light on the port side.

1. The mast-head light is to be visible at a distance of at least five miles in a dark night with a clear atmosphere, and the lantern is to be so constructed as to shew a uniform and unbroken light over an arc of the horizon of twenty points of the compass, being ten points on each side of the ship, viz., from right ahead to two points abaft the beam on either side.

2. The green light on the starboard side is to be visible at a distance of at least two miles in a dark night, with a clear atmosphere; and the lantern is to be so constructed as to shew a uniform and unbroken light over an arc of the horizon of ten points of the compass, viz., from right ahead to two points abaft the beam on the starboard side.

3. The red light on the port side is likewise to be fitted so as to throw its light the same distance on that side.

4. The side lights are, moreover, to be fitted with screens, on the inboard side, of at least three feet long, to prevent the lights from being seen across the bow.

When at anchor.—A common bright light.

Sailing Vessels.

We hereby require that all sailing vessels when under sail, or being towed, approaching, or being approached by any other vessel, shall be bound to shew, between sunset and sunrise, a bright light, in such a position as can be best seen by such vessel or vessels, and in sufficient time to avoid collision.

All sailing vessels at anchor in roadsteads or fairways, shall be also bound to exhibit, between sunset and sunrise, a constant bright light at the mast-head; except within harbours, or other places, where regulations for other lights for ships are legally established.

The lantern to be used when at anchor, both by steam vessels and sailing vessels, is to be so constructed as to shew a clear, good light all round the horizon.

We hereby revoke all regulations heretofore made by us relating to steam vessels exhibiting or carrying lights; and we require that the preceding regulations be strictly carried into effect, on and after the 1st of August 1852.

Given under our hands the 1st day of May 1852.

HYDE PARKER.
P. HORNBY.

By command of their Lordships,

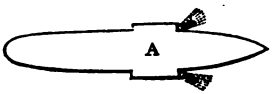
W. A. B. HAMILTON.

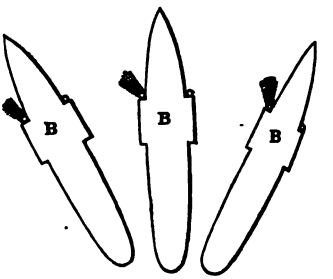
Diagrams intended to Illustrate the Working of this Mode of Fitting Lights.

1ST SITUATION.

In this situation, the steamer A will only see the red light of vessel B in whichsoever of the three positions the latter may happen to be, because the green light will be hid from view. A will be assured that the port side of B is towards him, and that the latter is therefore crossing the bows of A in some direction to port. A will therefore (if so close as to fear collision) *port* his helm with confidence, and pass clear. On the other hand the vessel B in either of three positions, will see the red, green, and mast-head

lights of A appear in a triangular form, by which the former will know that a steamer is ap-

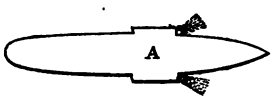




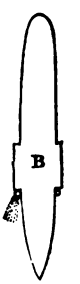
proaching directly towards him. B will act accordingly.

It is scarcely necessary to remark, that the mast-head light will always be visible in every situation till abaft the beam.

2D SITUATION.

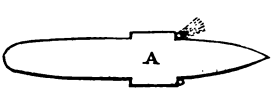


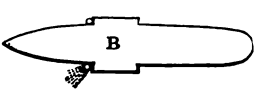
Here A will see B's green light only, which will clearly indicate to the former that B is crossing to starboard. Again, A's three lights being visible to B will apprise the latter that a steamer is steering directly towards him.



3D SITUATION.

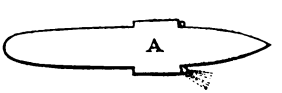
A and B will see each other's red light only. The screens preventing the green lights from being seen. Both vessels are evidently passing to port.

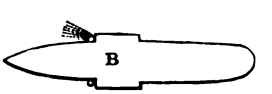




4TH SITUATION.

Here a green light only will be visible to each; the screens preventing the red lights from being seen. They are therefore passing to starboard.





5TH SITUATION.

Here the two coloured lights, visible to each, will indicate their direct approach towards each other. In this situation both should put their helms to port.

Directions for Fitting the Lights.

The manner of fixing the coloured lights is to be particularly attended to. They should be fitted, each, with a screen of wood, on the inboard side, in order to prevent both being seen at the same moment from any direction but that of right-a-head.

This is important, for without the screens (a principle first introduced with this plan) any plan of bow-lights would be ineffective as a means of indicating the direction of steering.

This will be readily understood by a reference to the preceding illustrations, where it will appear evident, that in any situation in which two vessels may approach each other in the dark, the coloured lights will instantly indicate to both the relative course of each,—that is, each will know whether the other is approaching directly or crossing the bows, either to starboard or to port. This intimation is all that is required, to enable vessels to pass each other in the darkest night, with almost equal safety as in broad day, and for the want of which so many lamentable accidents have occurred.

It is left to all persons concerned to furnish themselves with whatever description of lantern they may see fit to adopt, provided always that the above conditions are fully and effectually carried out.

By command of their Lordships,

W. A. B. HAMILTON.

NOTE.—The system of night lights laid down in the above regulations has been adopted in Her Majesty's service, and by the Governments of the principal foreign maritime nations.

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As many accidents attend a ship during a day's sailing,—such as variableness of winds, the different quantity of sail carried, &c.,—it will be necessary to heave the log at every alteration; and, even if no alteration be perceptible, yet it ought to be occasionally heaved.

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NOTE H.—P. 34.

BLOCKS.

Blocks are single, double, treble, or fourfold, according as the number of sheaves is one, two, three, or four. The *sheaves*, or wheels on which the rope runs, are grooved to receive the rope, and have in their centre, a brass or iron bush, with a through hole to receive the *pin*, on which the sheaves turn;—the outside of iron or wood is called the shell, and the sides of it are called the *cheeks*; and that part of a block by which it is made fast to any particular object, is the *strap*, usually made of rope or iron. A *running* block is attached to the object to be moved; a *standing* block is fixed to some permanent support. Usually, blocks are named, either from their shape,—their purpose,—or their mode of application.

NOTE I.—Chap. IX., p. 40.

REEFING TOPSAILS FROM THE DECK.

This ingenious contrivance has been found to answer admirably. The sail reefs itself; and from the time the yard is lowered, it is close-reefed in two seconds; so that, in nautical affairs, this may be ranked as one of the wonders of the age. The invention is not expensive, because the sails and topsail yards now in use, can be easily altered, at an expense not exceeding £15 per yard and sail. This was invented by Mr H. D. P. Cunningham, R.N., private secretary to Admiral Moresly; and the invention has been patented.

When at anchor.—A common bright light.

Sailing Vessels.

We hereby require that all sailing vessels when under sail, or being towed, approaching, or being approached by any other vessel, shall be bound to shew, between sunset and sunrise, a bright light, in such a position as can be best seen by such vessel or vessels, and in sufficient time to avoid collision.

All sailing vessels at anchor in roadsteads or fairways, shall be also bound to exhibit, between sunset and sunrise, a constant bright light at the mast-head; except within harbours, or other places, where regulations for other lights for ships are legally established.

The lantern to be used when at anchor, both by steam vessels and sailing vessels, is to be so constructed as to shew a clear, good light all round the horizon.

We hereby revoke all regulations heretofore made by us relating to steam vessels exhibiting or carrying lights; and we require that the preceding regulations be strictly carried into effect, on and after the 1st of August 1852.

Given under our hands the 1st day of May 1852.

HYDE PARKER.
P. HORNBY.

By command of their Lordships,

W. A. B. HAMILTON.

Diagrams intended to Illustrate the Working of this Mode of Fitting Lights.

1ST SITUATION.

In this situation, the steamer A will only see the red light of vessel B in whichsoever of the three positions the latter may happen to be, because the green light will be hid from view. A will be assured that the port side of B is towards him, and that the latter is therefore crossing the bows of A in some direction to port. A will therefore (if so close as to fear collision) *port* his helm with confidence, and pass clear. On the other hand the vessel B in either of three positions, will see the red, green, and mast-head

NOTE K.—Pp. 158, 219.

ADMIRALTY NOTICE RESPECTING LIGHTS TO BE CARRIED BY SEA-GOING VESSELS TO PREVENT COLLISION.

By the Commissioners for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c., &c.

BY virtue of the power and authority vested in us by the act 14 and 15 Victoria, cap. 79, dated 7th Aug. 1851, we hereby require and direct that the following regulations be strictly observed:—

Steam Vessels.

All British sea-going steam vessels (whether propelled by paddles or screws) shall, within all seas, gulfs, channels, straits, bays, creeks, roads, roadsteads, harbours, havens, ports, and rivers, and under all circumstances, between sunset and sunrise, exhibit lights of such description, and in such manner, as is hereinafter mentioned, viz:—

When under steam. { A bright white light at the foremast head.
A green light on the starboard side.
A red light on the port side.

1. The mast-head light is to be visible at a distance of at least five miles in a dark night with a clear atmosphere, and the lantern is to be so constructed as to shew a uniform and unbroken light over an arc of the horizon of twenty points of the compass, being ten points on each side of the ship, viz., from right ahead to two points abaft the beam on either side.

2. The green light on the starboard side is to be visible at a distance of at least two miles in a dark night, with a clear atmosphere; and the lantern is to be so constructed as to shew a uniform and unbroken light over an arc of the horizon of ten points of the compass, viz., from right ahead to two points abaft the beam on the starboard side.

3. The red light on the port side is likewise to be fitted so as to throw its light the same distance on that side.

4. The side lights are, moreover, to be fitted with screens, on the inboard side, of at least three feet long, to prevent the lights from being seen across the bow.

When at anchor.—A common bright light.

Sailing Vessels.

We hereby require that all sailing vessels when under sail, or being towed, approaching, or being approached by any other vessel, shall be bound to shew, between sunset and sunrise, a bright light, in such a position as can be best seen by such vessel or vessels, and in sufficient time to avoid collision.

All sailing vessels at anchor in roadsteads or fairways, shall be also bound to exhibit, between sunset and sunrise, a constant bright light at the mast-head; except within harbours, or other places, where regulations for other lights for ships are legally established.

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Diagrams intended to Illustrate the Working of this Mode of Fitting Lights.

1ST SITUATION.

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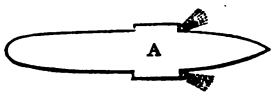
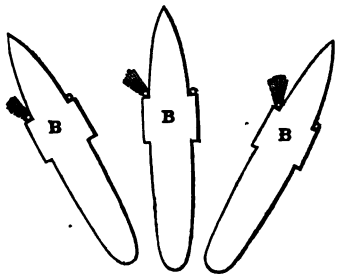
lights of A appear in a triangular form, by which the former will know that a steamer is ap-

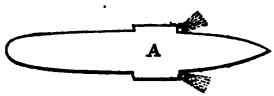




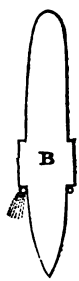
proaching directly towards him. B will act accordingly.

It is scarcely necessary to remark, that the mast-head light will always be visible in every situation till abaft the beam.

2D SITUATION.

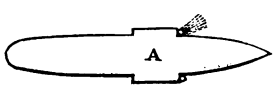


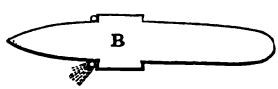
Here A will see B's green light only, which will clearly indicate to the former that B is crossing to starboard. Again, A's three lights being visible to B will apprise the latter that a steamer is steering directly towards him.



3D SITUATION.

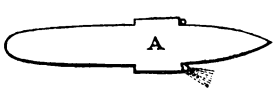
A and B will see each other's red light only. The screens preventing the green lights from being seen. Both vessels are evidently passing to port.





4TH SITUATION.

Here a green light only will be visible to each; the screens preventing the red lights from being seen. They are therefore passing to starboard.



5TH SITUATION.

Here the two coloured lights, visible to each, will indicate their direct approach towards each other. In this situation both should put their helms to port.

Directions for Fitting the Lights.

The manner of fixing the coloured lights is to be particularly attended to. They should be fitted, each, with a screen of wood, on the inboard side, in order to prevent both being seen at the same moment from any direction but that of right-a-head.

This is important, for without the screens (a principle first introduced with this plan) any plan of bow-lights would be ineffective as a means of indicating the direction of steering.

This will be readily understood by a reference to the preceding illustrations, where it will appear evident, that in any situation in which two vessels may approach each other in the dark, the coloured lights will instantly indicate to both the relative course of each,—that is, each will know whether the other is approaching directly or crossing the bows, either to starboard or to port. This intimation is all that is required, to enable vessels to pass each other in the darkest night, with almost equal safety as in broad day, and for the want of which so many lamentable accidents have occurred.

It is left to all persons concerned to furnish themselves with whatever description of lantern they may see fit to adopt, provided always that the above conditions are fully and effectually carried out.

By command of their Lordships,

W. A. B. HAMILTON.

NOTE.—The system of night lights laid down in the above regulations has been adopted in Her Majesty's service, and by the Governments of the principal foreign maritime nations.

GEORGE PHILIP AND SON, PRINTERS, LIVERPOOL.

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ballast is used, care must be taken to prevent the bottom of the pumps from drawing in the sand, by protecting these with tarred canvas or matting. But there has been patented an ingenious mode of ballasting ships, by means of water introduced into the hold, which is divided into a number of water-tight compartments. Partitions are placed between the ribs or timbers, which are made up by boarding, and the joints carefully caulked; over the planking are placed sheets of felt, such as are usually used for the sheathing of ships' bottoms; over these may be placed sheets or plates of iron, which, being made perfectly tight, form a series of tanks capable of holding water, by which the ship is ballasted.—*British Cyclop.*

NOTE G.—Chap. II.

WIRE-ROPE STANDING RIGGING.

Wire-ropes are now used for the standing rigging of ships, instead of hemp or chain rigging. The improved wire-rope is patented, and the patentees are Messrs Newall & Co., Gateshead-on-Tyne, and North Dock, Sunderland; and, in the preface by them, to their tables of the sizes and weights of the wire-rope standing rigging, its advantage and superiority are stated to be:—

There is a reduction in the size and weight of the standing rigging, when made of the patent improved wire-rope, compared with the size and weight, when made of the best hempen rope. The reduction in size is such, that the *bulk* of the wire-rope rigging is only *one-sixth* that of hemp, while the *weight* is reduced to nearly *one half*. It is *cheaper* than hemp-rope;—it is more *durable;* and, though a little less *elastic* than well-seasoned hemp-rigging of the best quality, it does not stretch permanently under great strains, as hemp rigging does. The advantage of lightness in the standing rigging, must be known to every practical seaman; as the removal of a weight of several tons from the great height, which the average of the standing rigging occupies above the centre of buoyancy, must increase the *stability*, and particularly the steadiness of the ship. The less *bulk* is of advantage in a circumstance, which has been frequently appreciated by the captains of vessels having auxiliary steam-power, when making way against the wind. The superior durability of wire-rope has now been tested by upwards of thirteen years' experience of ropes, "running" and "standing," in all varieties of circumstances. The patentees have made direct experiments on the amount of *stretch* and the *springiness* or degree of elasticity of well-seasoned hemp and wire-rope shrouds, of equivalent strength, under strains equal to

one-third of that which would break them, or greater than that to which they are commonly exposed in ordinary practice; and these experiments have shewn that,—while the *stretch* or permanent lengthening of the wire-rope is nothing compared with that of hemp, —the difference of springiness is not more than one inch in favour of hemp, in the longest shrouds:—practically, therefore, the less elasticity of wire-rope is of no importance. And another valuable quality of wire-rope rigging is,—its not being liable, by changes in the atmosphere, to those sudden alterations of length to which hemp is subject, and which every seaman knows give rise to inconvenience and great labour in setting up the rigging, and to serious accidents, when, as often happens, the change takes place in a single night, in circumstances which render it impossible to set up the rigging, before the mischief has ensued.

Note H.—P. 34.

BLOCKS.

Blocks are single, double, treble, or fourfold, according as the number of sheaves is one, two, three, or four. The *sheaves*, or wheels on which the rope runs, are grooved to receive the rope, and have in their centre, a brass or iron bush, with a through hole to receive the *pin*, on which the sheaves turn;—the outside of iron or wood is called the shell, and the sides of it are called the *cheeks*; and that part of a block by which it is made fast to any particular object, is the *strap*, usually made of rope or iron. A *running* block is attached to the object to be moved; a *standing* block is fixed to some permanent support. Usually, blocks are named, either from their shape,—their purpose,—or their mode of application.

Note I.—Chap. IX., p. 40.

REEFING TOPSAILS FROM THE DECK.

This ingenious contrivance has been found to answer admirably. The sail reefs itself; and from the time the yard is lowered, it is close-reefed in two seconds; so that, in nautical affairs, this may be ranked as one of the wonders of the age. The invention is not expensive, because the sails and topsail yards now in use, can be easily altered, at an expense not exceeding £15 per yard and sail. This was invented by Mr H. D. P. Cunningham, R.N., private secretary to Admiral Moresly; and the invention has been patented.

NOTE J.—P. 157.

NUMBER AND DIMENSIONS OF BOATS WITH WHICH SEAGOING SHIPS ARE TO BE PROVIDED.

Registered Tonnage.		Column 1. To be carried by Sailing Ships and Steam Ships.								Column 2. To be carried by Sailing Ships and by Steam Ships, when they do not carry the Boats in Col. 3.				Column 3. To be carried by Steam Ships which do not carry the Boat in Col. 2.								Total Number of Boats.	
		Boats.				Boats				Launches.				Boats.				Life Boats.					
Sailing Ships.	Steam Ships.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Sailing Ships	Steam Ships.
Tons.	Tons.		Ft.	Ft. In.	Ft. In.		Ft.	Ft. In.	Ft. In		Ft.	Ft. In.	Ft. In.		Ft.	Ft. In.	Ft. In.		Ft.	Ft. In	Ft. In		
..	1000 and upwards	1	18	5 6	2 3	2	24	5 6	2 6	1	27	8 6	3 8	2	22	5 6	2 6	2	28	8 6	3 6	..	7
..	800 to 1000	1	18	5 6	2 3	2	26	6 6	2 8	1	26	8 0	3 8	2	22	5 8	2 6	..	..	..	..	..	4 or 5
800 and upwards	500 to 800	1	18	5 6	2 3	2	24	5 6	2 6	1	26	8 0	3 8	2	22	5 6	2 6	..	..	.	..	4	4 or 5
600 to 800	360 to 500	1	16	5 6	2 3	2	24	5 6	2 6	1	25	7 0	3 6	2	22	5 6	2 6	..	..	..	..	4	4 or 5
400 to 600	240 to 360	1	16	5 6	2 3	1	22	5 6	2 5	1	22	6 6	3 3	2	22	5 6	2 6	..	..	..	..	3	3 or 5
200 to 400	120 to 240	1	14	5 0	2 2	..	..	..	..	1	20	6 0	3 0	2	22	5 6	2 6	..	..	..	..	2	2 or 5
100 to 200	60 to 120	1	14	5 0	2 2	..	..	..	..	1	16	5 6	2 9	2	18	5 6	2 4	..	..	..	..	2	2 or 3
Under 100	Under 60		14	5 0	2 2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1

as the case may be.

Note.—In Sailing Ships carrying the Number of Boats above specified, and Steam Ships carrying the larger of the Two Numbers above specified, the Boats are to be considered sufficient, if their aggregate cubic contents are equal to the aggregate cubic contents of the Boats specified.

In Steam Ships carrying the smaller of the Two Numbers above specified, One of the Boats must be a Launch of the Capacity specified in Col. 2.

In Sailing Ships of 200 Tons Burden and under, not carrying Passengers, a Dingy may be substituted for the Boat in Col. 1.

In Sailing Ships of 150 Tons Burden and under, not carrying Passengers, a substantial Boat of Capacity sufficient to carry the Crew, may be substituted for those above specified.

In all Steam Ships, Two Paddlebox Boats may be substituted for any two of the Boats in Col. 3.

NOTE K.—Pp. 158, 219.

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When under steam. { A bright white light at the foremast head.
A green light on the starboard side.
A red light on the port side.

1. The mast-head light is to be visible at a distance of at least five miles in a dark night with a clear atmosphere, and the lantern is to be so constructed as to shew a uniform and unbroken light over an arc of the horizon of twenty points of the compass, being ten points on each side of the ship, viz., from right ahead to two points abaft the beam on either side.

2. The green light on the starboard side is to be visible at a distance of at least two miles in a dark night, with a clear atmosphere; and the lantern is to be so constructed as to shew a uniform and unbroken light over an arc of the horizon of ten points of the compass, viz., from right ahead to two points abaft the beam on the starboard side.

3. The red light on the port side is likewise to be fitted so as to throw its light the same distance on that side.

4. The side lights are, moreover, to be fitted with screens, on the inboard side, of at least three feet long, to prevent the lights from being seen across the bow.

When at anchor.—A common bright light.

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HYDE PARKER.
P. HORNBY.

By command of their Lordships,

W. A. B. HAMILTON.

Diagrams intended to Illustrate the Working of this Mode of Fitting Lights.

1ST SITUATION.

In this situation, the steamer A will only see the red light of vessel B in whichsoever of the three positions the latter may happen to be, because the green light will be hid from view. A will be assured that the port side of B is towards him, and that the latter is therefore crossing the bows of A in some direction to port. A will therefore (if so close as to fear collision) *port* his helm with confidence, and pass clear. On the other hand the vessel B in either of three positions, will see the red, green, and mast-head

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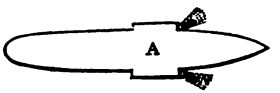
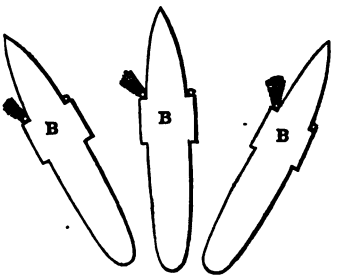
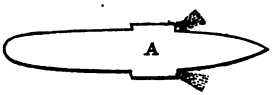




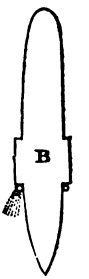
proaching directly towards him. B will act accordingly.

It is scarcely necessary to remark, that the mast-head light will always be visible in every situation till abaft the beam.

2D SITUATION.



Here A will see B's green light only, which will clearly indicate to the former that B is crossing to starboard. Again, A's three lights being visible to B will apprise the latter that a steamer is steering directly towards him.



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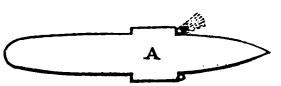
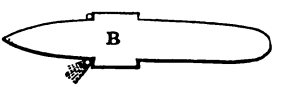
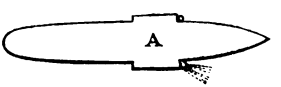
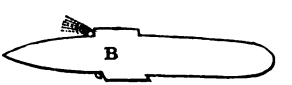




4TH SITUATION.

Here a green light only will be visible to each; the screens preventing the red lights from being seen. They are therefore passing to starboard.





5TH SITUATION.

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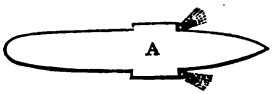
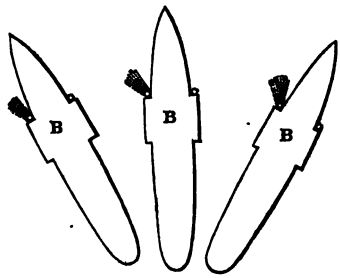
lights of A appear in a triangular form, by which the former will know that a steamer is ap-

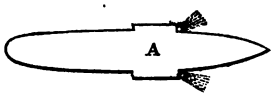




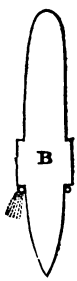
proaching directly towards him. B will act accordingly.

It is scarcely necessary to remark, that the mast-head light will always be visible in every situation till abaft the beam.

2D SITUATION.

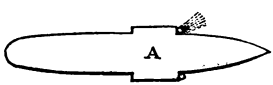


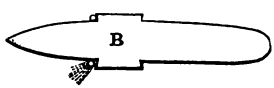
Here A will see B's green light only, which will clearly indicate to the former that B is crossing to starboard. Again, A's three lights being visible to B will apprise the latter that a steamer is steering directly towards him.



3D SITUATION.

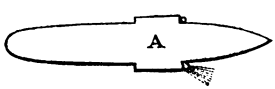
A and B will see each other's red light only. The screens preventing the green lights from being seen. Both vessels are evidently passing to port.





4TH SITUATION.

Here a green light only will be visible to each; the screens preventing the red lights from being seen. They are therefore passing to starboard.



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31 [illegible]
32 [illegible]
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[illegible] Map
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[illegible], Abyssinia and

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68 [illegible]
69 [illegible]
70 [illegible] and La Plata

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